HITACHI

PA **No. 0080**

36UX52B/CZ77
32UX51B/CY77
36CX35B/CZ73
36FX42B/CZ75
32FX41B/CY75

SERVICE MANUAL

NTSC M7LXU CHASSIS

R/C: **CLU-431UI**
CLU-432U

CAUTION: Before servicing this chassis, it is important that the service technician read the "Safety Precautions" and "Product Safety Notices" in this Service Manual.

This television receiver will display television Closed Captioning (CC or ☐) in accordance with paragraph 15.119 of the FCC rules.

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SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

SOLID STATE COLOR TELEVISION

JULY 1997 **HHEA - MANUFACTURING DIVISION**

SAFETY PRECAUTIONS

NOTICE: Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.

WARNING: Since the chassis of this receiver is connected to one side of the AC power supply during operation, whenever the receiver is plugged in, service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of receiver.

The following precautions should be observed:
1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn. People not so equipped should be kept away from the picture tube while handling.
2. When service is required, an isolation transformer should be inserted between power line and the receiver before any service is performed on a "HOT" chassis receiver.
3. When replacing a chassis in the receiver, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment cover-shields, isolation resistors, capacitors, etc.
4. When service is required, observe the original lead dress in the high voltage circuitry area.
5. Always use the manufacturer's replacement components. Critical components as indicated on the circuit diagram should not be replaced by another manufacturer's. Furthermore, where a short circuit has occurred, replace those components that indicate evidence of overheating.
6. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the receiver by the manufacturer has become defective, or inadvertently defeated during servicing.

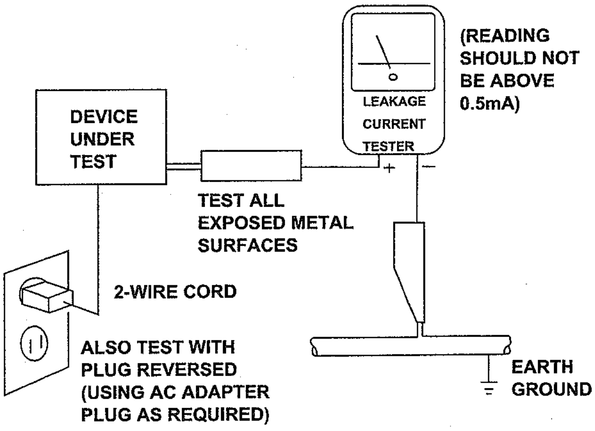
Therefore, the following checks should be performed for the continued protection of the customer and service technician.

Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch ON using an insulation tester (DC500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (antennas, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a minimum resistor reading of 0.24MΩ and a maximum resistor reading of 5.2MΩ . Any resistance value below or above this range indicates an abnormality which requires corrective action. Exposed metal part not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC 120V 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power ON. Using a "leakage Current Tester (Simpson's Model 229 or equivalent)", measure for current from all exposed metal parts of the cabinet (antennas, screwheads, overlays, control shafts, etc.) particularly any exposed metal part having a return path to the chassis or to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.


DEVICE UNDER TEST
LEAKAGE CURRENT TESTER
+
−
(READING SHOULD NOT BE ABOVE 0.5mA)
TEST ALL EXPOSED METAL SURFACES
2-WIRE CORD
ALSO TEST WITH PLUG REVERSED (USING AC ADAPTER PLUG AS REQUIRED)
EARTH GROUND

AC LEAKAGE TEST

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE RECEIVER TO THE CUSTOMER.

High Voltage

This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit is operated correctly.

Serviceman Warning

With minimum BRIGHTNESS and CONTRAST, the operating high voltage in this receiver is lower than 35.0kV. In case any component having influence on the high voltage is replaced, confirm that high voltage with minimum BRIGHTNESS and CONTRAST is lower than 35.0kV. To measure high voltage use a high impedance High Voltage Meter. Connect (-) to chassis earth and (+) to the CPT Anode button (See the following connection diagram).

NOTE: Turn the power switch OFF without fail before the connection to the Anode button is made.

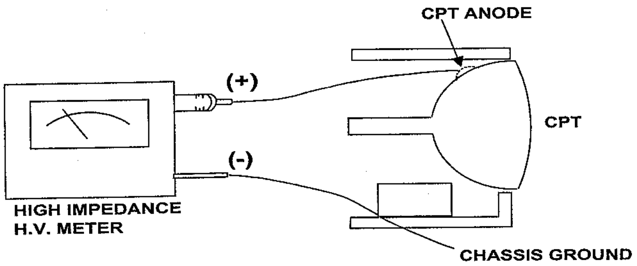
PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in HITACHI television receivers have special safety related characteristics. These are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacements parts which have these special safety characteristics are identified in this Model Service Manual.

Electrical components having such features are identified with an ⚠ mark in the schematics and parts list in this Model Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI recommended replacement one, shown in the parts list in this Model Service Manual, may create shock, fire, X-Radiation, or other hazards.

Production Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies of HITACHI Service Manual may be obtained at a nominal charge from HITACHI SALES CORPORATION.



X-Radiation

TUBE: The primary source of X-Radiation in this receiver is the picture tube. The tube utilized in this chassis is specially constructed to limit X-Radiation emission. For continued X-Radiation protection, the replacement tube must be the same type as the original HITACHI approved type.

When troubleshooting and making test measurements in a receiver with an excessive high voltage problem, avoid coming unnecessarily close to the picture tube and the high voltage component.

Do not operate the chassis longer than is necessary to locate the cause of the excessive voltage.

This Service Manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the product and its safety. Consumers should not risk trying to do the necessary repairs and should instead refer to a qualified service technician.

WARNING
Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm
(California Health and Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components with lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by ⚠ on the parts list in this Model Service Manual and its supplements and bulletins. Before servicing this, it is important that the service technician read and follow the "Safety Precautions" and the "Product Safety Notices" in this Service Manual.

For continued X-Radiation protection, replace picture tube with original type or Hitachi equivalent type.

POWER SOURCE

This television receiver is designed to operate on 120 Volts/ 60Hz, AC house current. Insert the power cord into a 120 Volts/60Hz outlet.

NEVER CONNECT THE TV TO OTHER THAN THE SPECIFIED VOLTAGE OR TO DIRECT CURRENT.

TECHNICAL SPECIFICATIONS

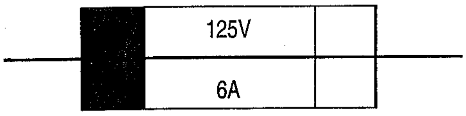
POWER RATINGS

36FX42B/CZ75	190 Max. Watts
32FX41B/CY75	176 Max. Watts
36UX52B/CZ77	193 Max. Watts
32UX51B/CY77	177 Max. Watts
36CX35B/CZ73	174 Max. Watts

COLOR PICTURE TUBE

36FX42B/CZ75	A90AHH50X01
32FX41B/CY75	A80LJF30X (W)
36UX52B/CZ77	A90AHH50X01
32UX51B/CY77	A80LJF30X (W)
36CX35B/CZ73	A90AFX15X01

CAUTION
The following symbol near the fuse indicates fast operating fuse (to be replaced). Fuse ratings appear within the symbo
Example:



F901

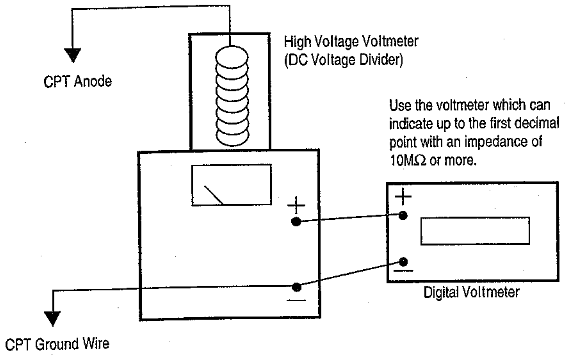
The rating of fuse F901 is 6.0A-125V.
Replace with the same type fuse for continued protection against fire.

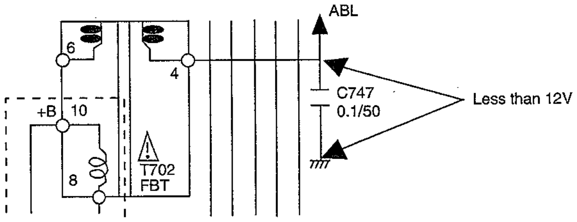
TECHNICAL CAUTIONS

High Voltage Limiter Circuit Operation Check and Overvoltage Protection Circuit Operation Check

Adjustment Preparation

1. Connect a High Voltage Voltmeter between CPT Anode terminal (Anode capside) and Ground.
2. Set the AC input voltage to 120±3V.
3. Receive Circle Pattern or Broadcast Signal and set "BRIGHTNESS" and "CONTRAST" to maximum. Adjust the SCREEN VR so that Beam Current is I_B ± 0.1 mA. (The voltage at ABL terminal (C747) should be 12V or less.)

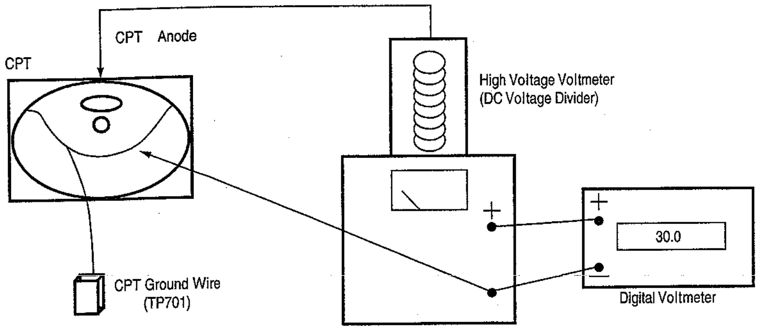

CPT Anode
High Voltage Voltmeter
(DC Voltage Divider)
Use the voltmeter which can indicate up to the first decimal point with an impedance of 10MΩ or more.
+
−
Digital Voltmeter
CPT Ground Wire


ABL
6
4
+B
10
8
T702
FBT
C747
0.1/50
Less than 12V

Adjustment Procedure

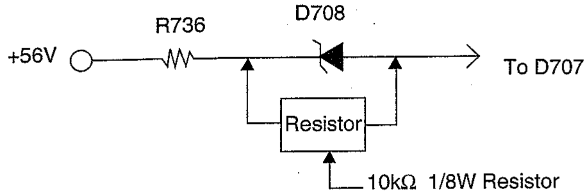
1. Check that the normal High Voltage and +B Voltage as below.

CHASSIS	EHT±1KV	1B±0.1mA	+B
CZ77 / CZ75 / CZ73	30.0KV	1.80mA	130 ±.3V
CY77 / CY75	29.6KV	1.50mA	130 ±.3V


CPT
CPT Anode
High Voltage Voltmeter
(DC Voltage Divider)
+
−
30.0
Digital Voltmeter
CPT Ground Wire
(TP701)

Use the voltmeter impedance 10MΩ or more with indication to the first decimal place.

2. Connect a 10KΩ 1/8W resistor to both ends of D708 and check that power is turned off.


+56V
R736
D708
To D707
Resistor
10kΩ 1/8W Resistor

3. Disconnect the AC plug and remove the 10kΩ resistor.

ADJUSTMENT SPECIFICATIONS

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Note:

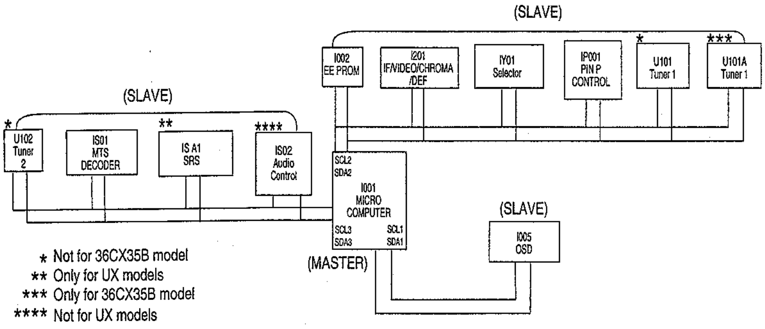
1. MAIN CHASSIS ADJUSTMENT is done with precision equipment. Readjustment is only recommended if the service technician replaced a defective component related to the circuit.
2. COMMON SERVICE ADJUSTMENT is recommended for the service technician after final troubleshooting and repair is done. Quick check and fine tuning is advisable to verify that the problem is eliminated.

I. MAIN CHASSIS ADJUSTMENT

1. Multi Master I^2C Bus System

M7LXU Chassis uses I^2C Bus control system. Fig. 1 shows this control system.

FIGURE 1


(SLAVE)
I002
EE PROM
I201
IF/VIDEO/CHROMA
/DEF
IY01
Selector
IP001
PIN P
CONTROL
*
U101
Tuner 1
***
U101A
Tuner 1
(SLAVE)
*
U102
Tuner
2
IS01
MTS
DECODER
**
IS A1
SRS
****
IS02
Audio
Control
SCL2
SDA2
I001
MICRO
COMPUTER
SCL3
SDA3
SCL1
SDA1
(MASTER)
(SLAVE)
I005
OSD

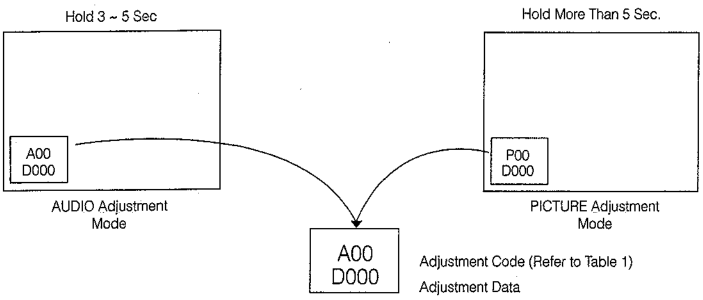
* Not for 36CX35B model
** Only for UX models
*** Only for 36CX35B model
**** Not for UX models

I001 (Master) controls other ICs (slave). Adjustment data is memorized in I002 (EEPROM). I001 reads this data and controls other ICs.
Adjustment items applied in this chassis are shown in Table 1.

2. ADJUSTMENT PROCEDURE—START UP

2-1 How to Get to Adjustment Mode

Chassis adjustment can be done by using the front control panel buttons with CTV set turned off. Press "POWER" and "MENU" or "INPUT" keys at the same time, and hold more than 3 seconds. The CTV set turns on in adjustment mode with OSD as follows.


Hold 3 ~ 5 Sec
Hold More Than 5 Sec.
A00
D000
P00
D000
AUDIO Adjustment
Mode
PICTURE Adjustment
Mode
A00
D000
Adjustment Code (Refer to Table 1)
Adjustment Data

"To Escape from Adjustment Mode"
Press "POWER" button of remo-con or front panel once at anytime. Then set returns to normal state.

TABLE 1
Adjustment Code

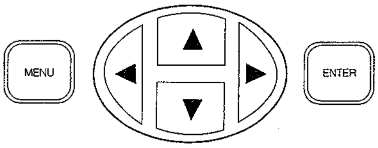
Code Name	Adjustment Mode	Adjustment Data	Item Remark	Service * Mode Data
A00	Audio Adj. Key Code	—	—	—
A01	Stereo VCO adjustment	63~0	4-5	026
A02	SAP VCO adjustment	63~0	4-8	034
A03	FILTER adjustment	63~0	4-6	026
A04	Input level adjustment	63~0	4-4-1	018
A05	Low pass separation adjustment	63~0	4-7	031
A06	High pass separation adjustment	63~0	4-7	027
P00	Picture Adj. Key Code	—	—	—
P01	PIF VCO adjustment	127~0	4-2-1	057
P02	RF ACG adjustment	63~0	4-13	044
P03	Horizontal Phase adjustment	15~0	4-10-1	018
P04	Vertical Phase adjustment	255~0	4-10-2	000
P05	Vertical Size adjustment	63~0	4-10-2	033
P06	Red cut off adjustment	255~0	4-9	154
P07	Green cut off adjustment	255~0	4-9	190
P08	Blue cut off adjustment	255~0	4-9	180
P09	Green Gain adjustment	255~0	4-11	068
P10	Blue Gain adjustment	255~0	4-11	104
P11	Sub Bright	-31~+31	4-12	000
—	Vertical O.S.C. stop	—	—	—
P12	Sub Color	-15~+15	4-16	008
P13	Sub Tint (-08 value)	-15~+15	4-14	-08
P14	Sub Sharpness (Center value)	-7~+7	4-15	000
P15	PinP Position	135~0	4-17	000
P16	PinP Tint	63~0	4-18	063
P17	PinP Contrast	127~0	4-3-2	032
P18	PinP Color-Sat	127~0	4-3-1	043
P19	PinP Sharp	3~0	4-19	000

* This data is an approximate service code data. Fine adjustment must be done using the specified test procedure and adjustment tools.

2-2 Changing Data and Adjustment Code

When the CTV set is in adjustment mode, the cursor "◀,▶,▲,▼" and ENTER keys of the customers remo-con will be the adjustment keys.

A. Use any Hitachi remote control with ENTER button as shown when making an adjustment.



"▲,▼" keys are used for changing adjustment code.
"◀,▶" keys are used for changing data.
ENTER key is used for changing "Cut Off Mode"/"Normal mode." (Refer to cut off adjustment)

3. ADJUSTMENT MODE

If below display appears

A00	P00
D000	D000

Adjustment code can not be changed by cursor "▲,▼" keys.

Set data "D020" at "A00" or "D030" at "P00" by "◀,▶" keys.
Then adjustment code can be changed by "▲,▼" keys.

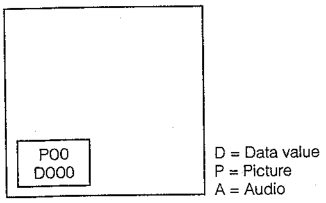
A00
D020

P00
D030

B. By Front Control Panel—Another Method

1. Before turning ON the set, press and hold the POWER button and INPUT button for about 3 seconds.

2. After 3 seconds, a small square will appear in the left lower corner. There are two different displays, depending upon how long the INPUT button is pressed and held. One shows A and D for audio adjustment, and the other shows P and D for the picture adjustment.


P00
D000
D = Data value
P = Picture
A = Audio

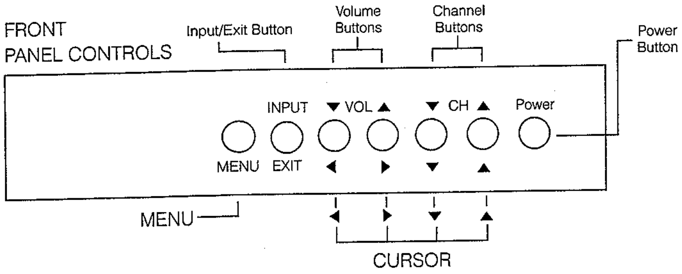
3. To activate the adjustment mode, input a data value of 30 (D030), using the front panel cursor ◀,▶ before any of the picture adjustments can be adjusted.

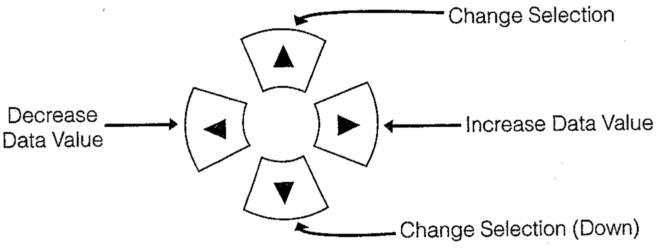
P00
D000

The same for the audio adjustment. To activate the audio adjustment, you need an input data value of 20 before any of the audio adjustments can be adjusted.

A00
D000

4. To make a selection, you have to use the arrow keys on front control panel.


FRONT
PANEL CONTROLS
Input/Exit Button
Volume Buttons
Channel Buttons
Power Button
INPUT
▼ VOL ▲
▼ CH ▲
Power
MENU
EXIT
◀
▶
▼
▲
MENU
CURSOR


Change Selection
Decrease Data Value
Increase Data Value
Change Selection (Down)

Match front panel control cursor to remote control cursor.

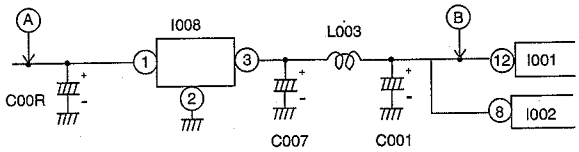
4. ADJUSTMENT PROCEDURE

4-1 Adjusting Mi-con clock

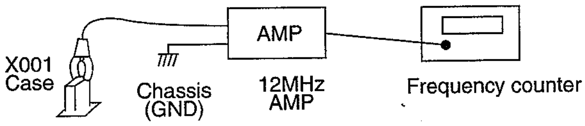
Adjustment Preparation

(1) Initial setting of EEPROM (I002)
Add +12V to Ⓐ point and check Ⓑ point is 5V±0.3V

Note: Keep adding +12V more than 5 seconds.


Ⓐ
I008
L003
Ⓑ
①
③
②
⑫
⑧
I001
I002
C00R
C007
C001

(2) Connect a frequency counter and a 12MHz amplifier as follows.


AMP
X001 Case
Chassis (GND)
12MHz AMP
Frequency counter

Adjustment Procedure

(1) This adjustment should be done at stand-by mode.
(2) Adjust CT01 so that the frequency is 12,000,000±100Hz.

(Other method)
(1) Add +12V A point. (Same as 4-1 (1))
(2) Connect frequency counter to I001 ㉖.
(3) Short I001 (52) pin to GND.
(4) Adjust CT01 so that the clock outputted from I001 ㉖ pin is 166.666KHz±2Hz.
(5) This adjustment should be done at power on mode.

4-2 IF ADJUSTMENT

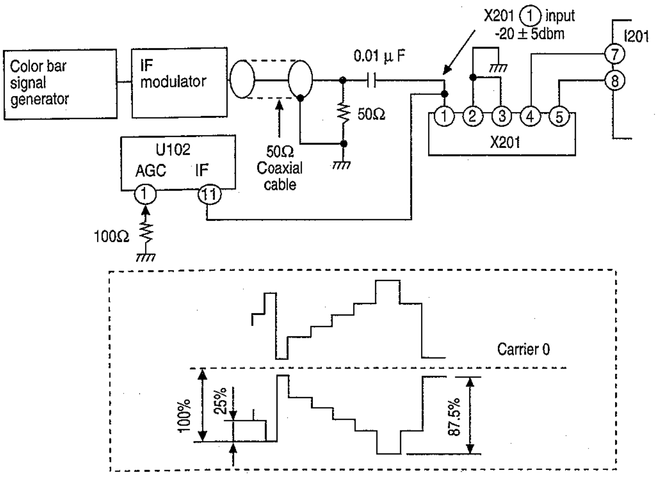
4-2-1 PIF/AFC Adjustment (except for 36CX35B/CZ73)

Adjustment Preparation

(1) Add +9V to pin ① and +12V to pin ④, ⑤ of PNH2 connector.

(2) Add 100Ω resistor between GND and U102 pin ①.

(3) Input signal to X201 pin ① as shown below.



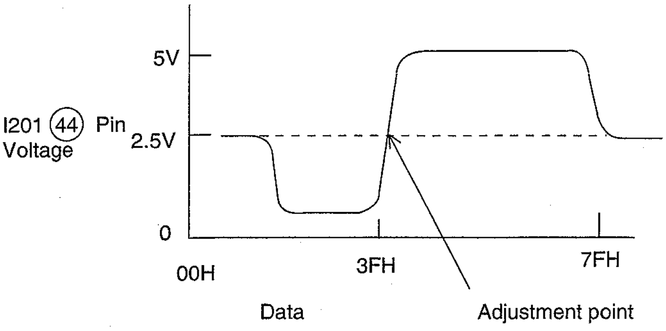
Color bar signal generator
IF modulator
U102
AGC IF
①
⑪
100Ω
50Ω Coaxial cable
0.01 μ F
50Ω
X201 ① input -20 ± 5dbm
I201
⑦
⑧
① ② ③ ④ ⑤
X201
Carrier 0
100%
25%
87.5%

(4) Connect DC voltmeter (input impedance 1M ohm or more) to I201 pin (44).

Adjustment Procedure

(1) Set adjustment code "P01."
Change data so that the voltmeter is 2.5±0.5V at I201 pin (44).

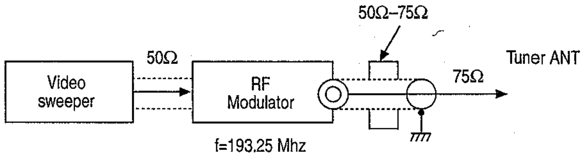
I201 (44) Pin output



4-2-2 Adjustment of IF waveform (except for 36CX35B/CZ73)

Adjustment Preparation

(1) Connect signal as follows.

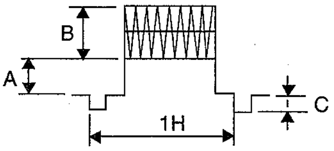


50Ω~75Ω
50Ω
Video sweeper
RF Modulator
75Ω
Tuner ANT
f=193.25 Mhz

Marks
0.2MHz
1 MHz
2 MHz
3.6MHz

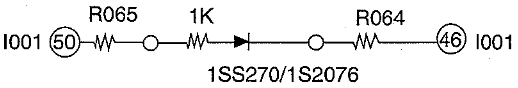
Output level 75±5 dB μ (50Ω load)
Modulation 90~70%

(2) Connect the oscilloscope to Q201 Ⓔ.
Check the signal at Q201 Ⓔ as follows.



A : Set up level 0.15V
B : Sweep Signal Level 0.5V
C : Sync. level 0.29V

(3) Add the following voltage.
(a) +9V to pin ① of PNH2 connector base.
(b) +12V to pin ④ and pin ⑤ of PNH2 connector base.
(c) +56V to pin ③ of PNS1 connector base.
(d) Connect a 1KΩ resistor and a diode as below.

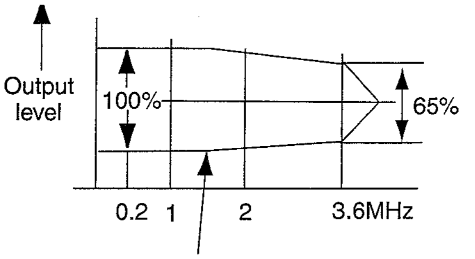


R065
1K
R064
I001 (50)
(46) I001
1SS270/1S2076

(e) Receive a color bar signal.

Adjustment Procedure

(1) Adjuster IF coil (U102) so that the output level of 0.2MHz is reference level (100%) and 3.6MHz level is 60%. (At that time, do not turn tuner IFT coil more than 1 turn.)

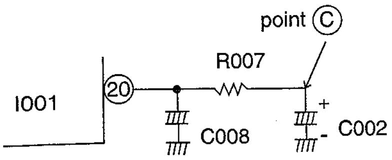


Check that 1MHz~2MHz level is 70%~100%

4-2-3 VCO for OSD adjustment

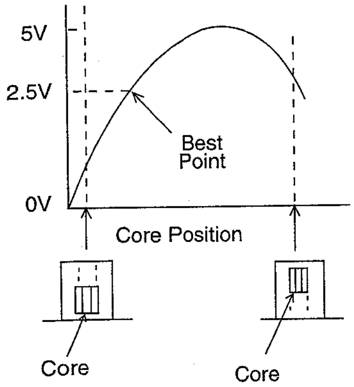
Adjustment Preparation

(1) Receive color bar or circle pattern signal.
(2) Connect a DC voltmemter to point Ⓒ.


point Ⓒ
R007
I001
⑳
C008
C002
+
-

Adjustment Procedure

(1) Adjust L001 so that the votmeter is 2.5±0.2V.

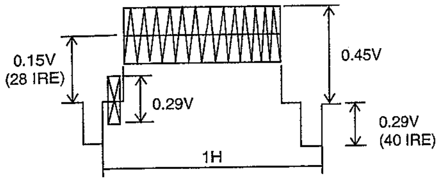


4-3 PinP ADJUSTMENT

4-3-1 Color amplitude

Adjustment Preparation

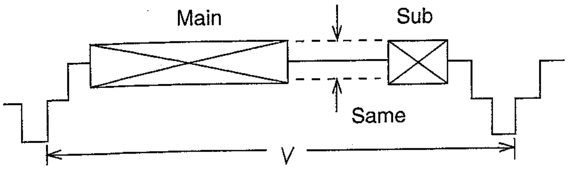
(1) Input red pattern signal to VIDEO1.


0.15V
(28 IRE)
0.29V
0.45V
0.29V
(40 IRE)
1H

(2) Turn CTV set ON.
(3) Select PinP adjustment code, "P18."
(4) Connect oscilloscope to pin ⑤ of PIPA connector base.

Adjustment Procedure

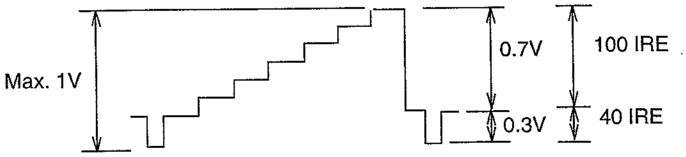
(1) Change data of "P18" so that the amplitude of main and sub signal level are the same.


Main
Sub
Same
V

4-3-2 Y amplitude

Adjustment Preparation

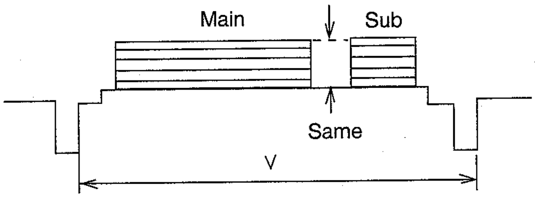
(1) Input 5 step signal to Video 1.


Max. 1V
0.7V
0.3V
100 IRE
40 IRE

(2) After adjustment of color amplitude, connect oscilloscope to pin ⑮ of PIPA connector base.
(3) Select PinP adjustment code "P17."

Adjustment Procedure

(1) Change data so that the amplitude of main and sub signal white peak level are the same.

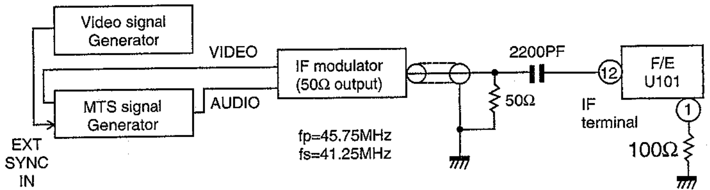

Main
Sub
Same
V

4-4 MTS ADJUSTMENT

4-4-1 Input Level Adjustment

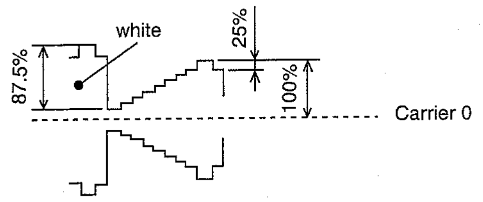
Adjustment Preparation

(1) Apply a signal to F/E U101 (or U101A for 36CX35B/CZ73) IF output terminals of Main PWB using the circuit shown below. And connect the AGC terminal ①of U101 (U101A for 36CX35B/CZ73) to GND with a 100Ω resistor.


Video signal Generator
VIDEO
MTS signal Generator
AUDIO
IF modulator (50Ω output)
fp=45.75MHz
fs=41.25MHz
2200PF
50Ω
⑫
F/E U101
IF terminal
①
100Ω
EXT SYNC IN

IF modulator output signal waveform
(Color bar or all white)

Note : Video signal and Audio Signal should be synchronized.


white
25%
87.5%
100%
Carrier 0

IF modulator output level and P/S
P=105dBu (50Ω termination)
S level; -3dB to P level
At this time, S/N ratio of F/E video output is 45dB or less.

Sound modulation condition
Noise reduction encoder: ON
Stereo signal
  1. R=0 (L only), 300Hz, 30% modulation (see note)
  2. R=0 (L only), 3kHz, 30% modulation (see note)
Monaural signal
  3. Monaural, 400Hz, 100% modulation (PRE-EN Off)
SAP signal
  4. SAP, 300Hz, 30% modulation (see note)

(2) Connect AC voltmeter V_O to IS01 pin ㉖.
Use the AC voltmeter of Matsushita made, model VP-950C or equivalent.
(3) Apply +9V to I201, IS01 (Refer to item 4-2-1(1))
(4) Same as item 4-1 (1)
(5) Select adjustment code "A04"

Adjustment Procedure

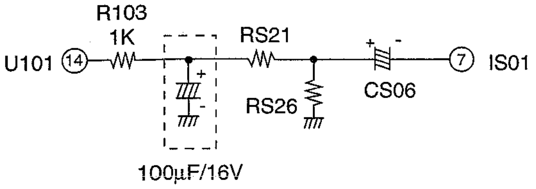
(1) Select sound input ③ and adjust the data "A04" to Vo=sig 450mVrms±10mVrms at IS01 pin ㉖.

4-5 Stereo VCO adjustment

Adjustment Preparation

(1) Same as items 4-2-1(1) and 4-1(1).
(2) Connect a frequency counter to IS01 pin ㉖.
Use the prove of 1:1.
(Prove standard Ri ≥ 1MΩ, Ci ≤ 15pF)
(3) No signal input of pin ⑦ (IS01).
(4) Select adjustment code "A01."
(5) Connect capacitor (100µF/16V) as follows.

Adjustment Procedure

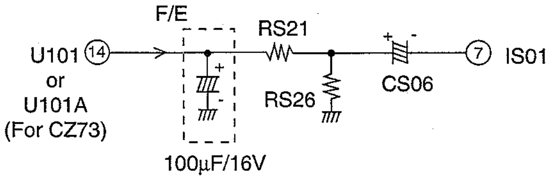


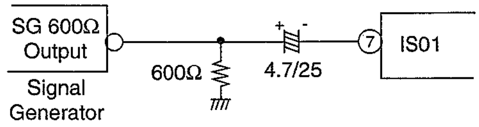
(1) Adjust the data "A01" to set 15.73±0.1KHz by "◀ ▶" keys.
(2) Delete capacitor (100µF/16v)

4-6 Filter Adjustment

Adjustment Preparation

(1) Set capacitor 100µF/16V as shown as follows.
(2) Apply the signal to IS01 pin ⑦ with the circuit shown as follows.





ⓐ SG output signal spec.
① Frequency
f=15.73kHz (Sin wave)

② Signal Level
V=100mVrms

(3) Connect an AC voltmeter or oscilloscope to IS01 pin ㉖.
(4) Select adjustment code "A03."

Adjustment Procedure

(1) Adjust the data "A03" so that the voltage of IS01 ㉖ pin is minimum by "◀ ▶" keys.

4-7 Separation Adjustment

(The adjustment of items 4-4-1 and 4-6 must be completed first)

Adjustment Preparation

(1) Use the same circuit as input level adjustment (4-4-1).
(2) Connect an AC voltmeter to AUDIO AMP to IS01 pin ㉖ or connect an oscilloscope.
(3) Select adjustment code "A06" and set data "D032."

Adjustment Procedure

(1) Select sound input signal ① and select adjustment code "A05." Adjust by "◀ ▶" keys so that 300Hz level is minimum (L separation adjustment)
(2) Select sound input signal ② and select adjustment code "A06." Adjust by "◀ ▶" keys so that 3KHz level is minimum (H separation adjustment).
(3) Repeat (1) and (2).
Adjustment precision:
within +1dB from minimum point.

4-8 SAP VCO Adjustment

Adjustment Preparation

(1) Connect a frequency counter to IS01 pin ㉖.
(2) Select adjustment Code "A02."
(3) Connect same circuit as in item 4-5.

Adjustment Procedure

(1) Adjust the data "A02" by "◀ ▶" keys so that the frequency is 78.67±0.5KHz.

4-9 Cut-Off Adjustment (Picture Adjustment)

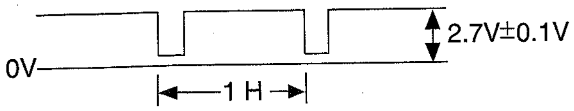
Adjustment Preparation

(1) Connect an oscilloscope at R, G, B output.
(2) Receive circle pattern signal.

	I201
R output	pin ⑲
G output	pin ⑳
B output	pin ㉑

Adjustment Procedure

(1) Select adjustment code "PO6" and press "ENTER" button.
(2) Use the cursor key "◀,▶" to adjust the red cut-off until the amplitude of the red output waveform is 2.7V±0.1V as shown below.
Adjustment for G and B are the same procedure as R cut-off adjustment. The only difference is the data for G cut-off is "P07" and B cut-off is "PO8."



4-10 Deflection Circuit Picture Adjustment

4-10-1 Horizontal Center Adjustment

Adjustment Preparation

(1) Apply heat-run 5 minutes or more after the power is turned on.
(2) Receive circle pattern signal.
(3) Set CONTRAST to maximum and others to center.
(4) Select adjustment code "P03."

Adjustment Procedure

(1) Adjust horizontal center so that difference of right and left size marker is within 0.5 by adjustment code "P03," using "◀,▶" keys (except for the model 36CX35B/CZ73).
(1a) For model 36CX35B/CZ73, adjust horizontal center so that difference of right and left size marker is 1−0.5 by adjustment code "P03" using "◀,▶" keys.

4-10-2 Vertical Size Adjustment

Adjustment Preparation

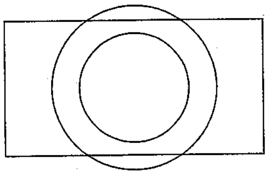
(1) Apply heat-run 5 minutes or more after the power is turned on.
(2) Receive circle pattern signal, and set CONTRAST to maximum and others to center.
(3) The set should face the north or south direction.

Adjustment Procedure

(1) Adjust vertical center and size so that the outer circle of the circle pattern is like the figure below by using "◀,▶,▲,▼" keys.

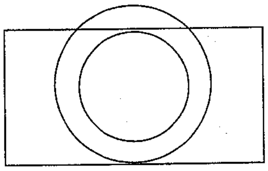
	Adjustment Code
V Center	"P04"
V Size	"P05"

i) Standard Condition



1/2 of the width of outer circle comes to the screen.

ii) When the picture center is above CPT center at V center is minimum.



When the picture center is above CPT center, adjust so that the bottom of the inner circle comes in contact with the TOP of the screen.

4-10-3 Side pin distortion adjustment (R777)

Adjustment Preparation

(1) Receive crosshatch signal and set CONTRAST to maximum and BRIGHTNESS to the point where the background is set.

Adjustment Procedure

(1) Adjust R777 so that the line of the right and left is straight.
spec. DL, DR ≤ 5mm (for 32V)
spec. DL, DR ≤ 7mm (for 36V)

4-10-4 Horizontal size adjustment (R755)

Adjustment Preparation

(1) Receive Circle Pattern signal.
(2) Set CONTRAST to maximum and BRIGHTNESS to center.

Adjustment Procedure

(1) For 32V model, vary R755 so that the horizontal size markers at the right and left ends are within 1.5. (Except model 36UX52B/CZ77).
(1a) For 36V model, vary R755 so that the horizontal size marker is 2.0 at the left and right.

4-11 White Balance Adjustment

Adjustment Preparation

(1) Apply heat-run 10 minutes or more after the power is turned on.
(2) Check that the purity adjustment has been completed.
(3) Set the vertical incident illumination on the CPT surface to 20 lux or less.
(4) Receive white raster signal.
(5) Set the color temperature control (white control) to cool.
(6) Set data of P09 and P10 to D128.
(7) Turn the screen adjusting VR fully counterclockwise.
(8) Set cut-off mode (see item 4-9).

Adjustment Procedure

(1) Turn the screen adjusting VR clockwise and set it to the position where the bright colored line starts appearing on CPT screen.
(2) Do not change the cut-off data (this data is named "CODE-A") corresponding to the color first appearing.
(3) Turn the screen fully clockwise adjusting VR when a bright color line does not appear.
(4) Adjust the cut-off data except Code-A so that the red, green and blue bright colored line appear on the screen equally by using "◀,▶,▲,▼" keys.
(5) Set to normal mode by pressing "ENTER" key.
(6) Change G and B data ("P09 and P10") by using "◀,▶" keys and adjust the high-brightness white balance.
(7) Adjust picture control to minimum and check that the low-brightness white balance is obtained by directly observing the low-brightness without using a mirror.
(8) When the low brightness white balance is not obtained, adjust other low-brightness white balance code except Code-A and return to item (6). White balance color temperature setting 9,300˚K
(9) Set white control (color temperature control) to warm, and check that color temperature is approx. 7,200˚K

	Adjustment Code
R cut off	P06
G cut off	P07
B cut off	P08
G drive	P09
B drive	P10

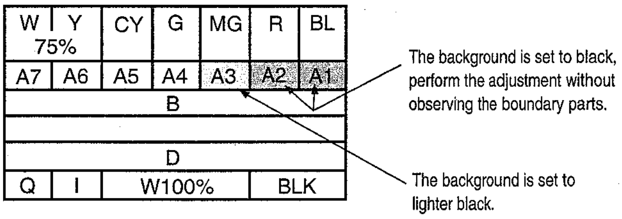
4-12 SUB-BLACK LEVEL ADJUSTMENT

Adjustment Preparation

(1) Apply heat-run for 10 min. or more after the power is turned on.
(2) Receive color bar signal.
(3) Set CONTRAST and color controls to min.
(4) Set the vertical incident illumination on the CPT surface to 20 lux or less.
(5) Set BRIGHTNESS control to the center position.
(6) Set white control to WARM.
(7) Select adjustment code "P11."

Adjustment Procedure

(1) Adjust "P11" data by using "◀ ▶" keys. The backgrounds of A1, A2 are set to black and A3 is set to lighter black.


W
Y
75%
CY
G
MG
R
BL
A7
A6
A5
A4
A3
A2
A1
B
D
Q
I
W100%
BLK
The background is set to black, perform the adjustment without observing the boundary parts.
The background is set to lighter black.

(2) Check by directly observing the CPT surface, without using a mirror.

4-13 AGC ADJUSTMENT FOR SUB-VIDEO (except for 36CX35B/CZ73)

Adjustment Preparation

(1) After all the adjustments are finished, heat-run 5 minutes or more in signal receiving condition.
(2) Receive circle pattern signal (for sub-VIDEO).
(3) Set CONTRAST to maximum, and BRIGHTNESS to on-screen display center.
(4) Antenna Input power: -53dBm (-53dBm~-53dBm)
(5) Connect DC voltmeter of internal resistance 1MΩ or more to R114, (U102 Pin ①)
(6) Set adjustment code "P02."

Adjustment Procedure

(1) Adjust "P02" data until the indication of DC voltmeter does not change any more at the maximum point. The reading of DC voltmeter is named V1. Adjust "P02" data so that the indication of DC voltmeter is {V1−(0.5±0.2)}V.

4-14 SUB TINT ADJUSTMENT

Set adjustment code "P13."
Set data "-08" by "◀ ▶" keys.

4-15 SUB SHARPNESS ADJUSTMENT

Set adjustment code "P14."
Set data "000" by "◀ ▶" keys.

4-16 SUB COLOR ADJUSTMENT

Set adjustment code "P12."
Set data "008" by "◀ ▶" keys.

4-17 PINP POSITION ADJUSTMENT

Set adjustment code "P15."
Set data "000" by "◀ ▶" keys.

4-18 PINP TINT ADJUSTMENT

Set adjustment code "P16."
Set data "063" by "◀ ▶" keys.

4-19 PINP SHARP ADJUSTMENT

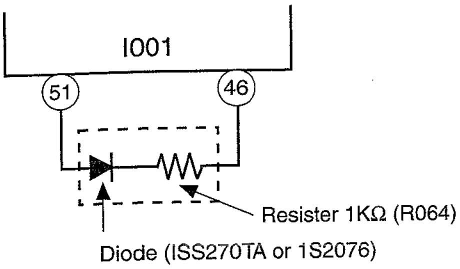
Set adjustment code "P19."
Set data "000" by "◀ ▶" keys.

II. FUNCTION SETTING

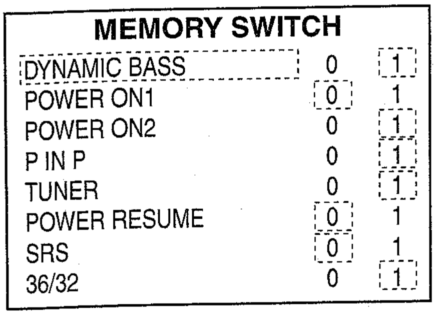
M7LXU Chassis has the data for setting variety functions in EEPROM (I002).
Microcomputer (I001) set the functions needed for each model according to EEPROM data (memory switch data).

1. HOW TO SET MEMORY SWITCH SETTING MODE

(1) Connect a diode as follows at power on.



An OSD will appear on the screen as follows.



```
MEMORY SWITCH
DYNAMIC BASS        0    1
POWER ON1           0    1
POWER ON2           0    1
P IN P              0    1
TUNER               0    1
POWER RESUME        0    1
SRS                 0    1
36/32               0    1
```

Function name
(Yellow background shows cursor position)

Data
(Yellow background shows selected data)

Cursor and data are changed by "◀,▶,▲,▼" button. After setting data, press "ENTER" button. Then MEMORY INITIALIZE operation start. After complete MEMORY INITIALIZATION, TIMER SOUND is outputed from left speaker.

Note: Press "MENU" to escape from setting mode.

(2) Remove diode after the operation is completed.

2. EXPLANATION OF FUNCTIONS

(1) Dynamic Bass
Select dynamic bass or not.
Data "1" – Apply dynamic bass
Data "0" – Do not apply dynamic bass

(2) Power 1, Power 2
Initial settings at plug in

POWER 1	POWER 2	
0	0	...Power off mode (normal)
1	0	...Power on at last state
0	1	...Power on at video mode
1	1	...Power on at TV (4CH) mode

(3) P in P
Select P in P function
Data "1" – Apply on PinP model
Data "0" – Apply on non-PinP model

(4) Tuner
Select tuners, one tuner or two tuners.
Data "1" – Selects one tuner
Data "0" – Selects two tuners

(5) Power Resume
Select power resume capability
Data "1" – Apply power resume
Data "0" – Do not apply power resume

(6) SRS
Select SRS capability
Data "1" – No SRS capability
Data "0" – SRS capability

(7) 36/32
Select 36 or 32
Data "1" – 32V model
Data "0" – 36V model

TABLE 2 MODEL AND DATA TABLE

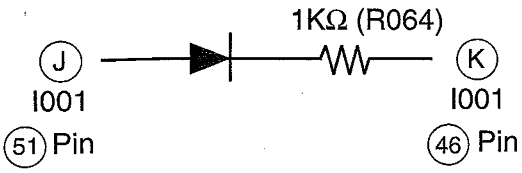
	MODEL NAME		
DATA NAME	36UX52B 32UX51B	36FX42B 32FX41B	36CX35B
Dynamic Bass	1	0	0
Power ON1	0	0	0
Power ON2	0	0	0
PinP	1	1	1
Tuner	0	0	1
Power Resume	1	1	1
SRS	0	1	1
36/32	10	1/0	1

III. MEMORY INITIALIZE

1. TIMER SOUND OPERATION CHECK

Adjustment Procedure

(1) Connect diode (ISS270TA or IS2076) to Ⓙ ~ Ⓚ.



(2) Confirm OSD-memory switch appears (see Function Setting, Item II).
(3) Remove diode. After this operation, each setting should become to delivery setting automatically.
(4) When the above operation is being performed check that a beeping sound is made from the left speaker.
Note: Press "MENU" to escape from setting mode.

IV. OPERATION CHECK

1. AFC OPERATION CHECK

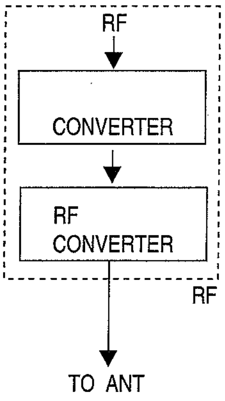
Adjustment Preparation

(1) Connect the circuit as shown below to the ANT terminal.

Adjustment Procedure

(1) Receive a standard carrier (not offset) with the channel up/down or direct selection buttons.
(2) Receive an offset signal of +1.5MHZ.
Check that it is pulled into the standard tuning point.
(3) Receive an offset signal of -1.5MHZ.
Check that it is pulled into the standard tuning point.
(Perform the channel selection operation again.)
Note: Modulation signal should be used at the circle pattern and the color bar signal.

Checking circuit
(All channel converter can be used)



2. CHANNEL SELECTION CIRCUIT OPERATION CHECK

2-1 Channel Up/Down Selection

Adjustment Preparation

(1) Set the TV set so that VHF (11, 13CH), UHF (14, 46, 63CH) and CATV (A, E, P, W, CH) can be received.
(2) Set Signal Source mode to Antenna on the set up menu.
(Press the Menu key, and select Setup, then select Signal Source mode, See next page.)

Adjustment Procedure

(1) Check that VHF are received correctly by pressing CH Up (▲) or Down (▼) button.

Adjustment Preparation

(3) Set Signal Source mode to CATV 1.

Adjustment Procedure

(2) Perform the same operation as in Item (1), and check that VHF and CATV are received correctly.

Adjustment Preparation

(4) Set Signal Source mode to CATV 2.

Adjustment Procedure

(3) Perform the same operation as in Item (1), and check that VHF and CATV are received correctly.

Note: This check should be done both ANT A and B. (Except 36CX35B/CZ73.)

2-2 CH Up/Down

Adjustment Preparation

(1) Set the TV set so that VHF (11, 13CH), UHF (14, 46, 63CH) and CATV (A, E, P, W CH) can be received.

Adjustment Procedure

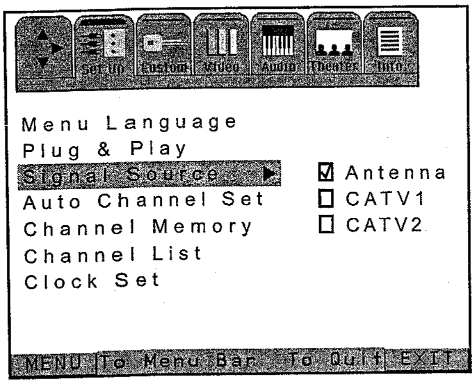
(1) Set Signal Source mode to Antenna on the set up menu.

(2) Select Auto CH set mode and press (▶) key on the set up menu.
After Auto CH set, operation is completed.
By pressing the channel Up (▲) or Down (▼) button, check that the channels having broadcast signal (S) can be received.

(3) Set Signal Source mode to CATV 1.

(4) Perform the same operation as in Item (2) and check that CATV can be received correctly.

SET UP MENU



Adjustment Preparation

(2) Set the channel list mode (in set up menu).

Note: CATV channels, actual input channels numbers and indicated channel numbers shown in Table 3 below.

Adjustment Procedure

(5) Check that the item of SCAN of channels which can be selected as above is ON.

Note 1: CATV channels, actual input channel numbers and indicated channel numbers.

A 14
E 18
P 29
W 36
A-2 98
GG (W+7) 43
OO (W+15) 51
WW (W+23) 59

Note 2: This check should be done both ANT A and B. (Except 36CX35B/CZ73)

TABLE 3

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	37	31	32	33	34	35	36
MID BAND									SUPER BAND													

W+1	W+2	W+3	W+4	W+5	W+6	W+7	W+8	W+9	W+10	W+11	W+12	W+13	W+14	W+15	W+16	W+17	W+18	W+19	W+20	W+21	W+22	W+23
37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
HYPER BAND																						

W+24	W+25	W+26	W+27	W+28	W+29	W+30	W+31	W+32	W+33	W+34	W+35	W+36	W+37	W+38	W+39	W+40	W+41	W+42	W+43	W+44	W+45	W+46
60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82
HYPER BAND					ULTRA BAND																	

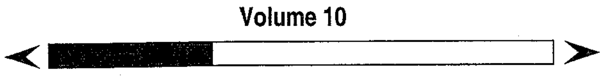
W+47	W+48	W+49	W+50	W+51	W+52	W+53	W+54	W+55	W+56	W+57	W+58	A-5	A-4	A-3	A-2	A-1	W+59	W+60	W+61	W+62	W+63	W+64
83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
ULTRA BAND												MID BAND					ULTRA BAND					

W+65	W+66	W+67	W+68	W+69	W+70	W+71	W+72	W+73	W+74	W+75	W+76	W+77	W+78	W+79	W+80	W+81	W+82	W+83	W+84
106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125
ULTRA BAND																			

2-3 VOL UP/DOWN

Adjustment Procedure

(1) Check that the volume level and volume indication is going up or down simultaneously by pressing volume Up (▲) or Down (▼) button.



2-4 POWER ON/OFF

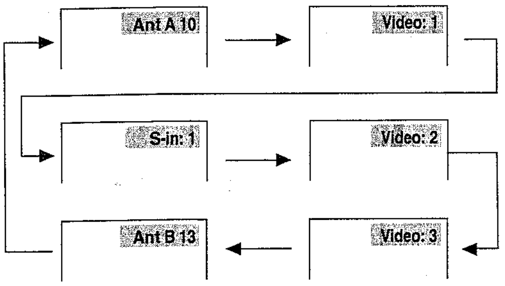
Adjustment Procedure

(1) Check that the power alternates between On and Off with each press of the Power button.

2-5 INPUT

Adjustment Procedure

(1) Check the O.S.D. with every press of the Input button, such as below.


Ant A 10
Video: 1
S-in: 1
Video: 2
Ant B 13
Video: 3

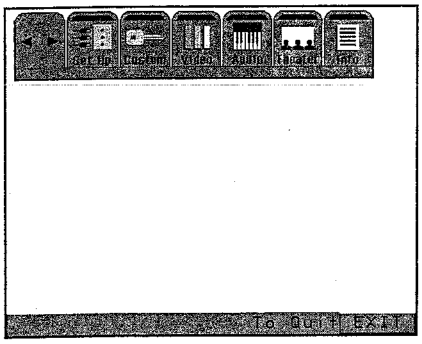
***Except 36CX35B**

Note: The selected input appears on a cyan background

2-6 MENU

(1) Check that the Menu O.S.D. displays by pressing Menu button.

Note: Menu O.S.D. is displayed as below.


Set Up
Custom
Video
Audio
Theater
Info
To Quit EXIT

(2) After Menu O.S.D. is displayed,

Menu	➔	MENU
CH Up	➔	▲ key
CH Down	➔	▼ key
Volume Up	➔	▶ key
Volume Down	➔	◀ key
Input	➔	EXIT

2-7 MENU MODE (using Remo)

2-7-1 Set Up Mode

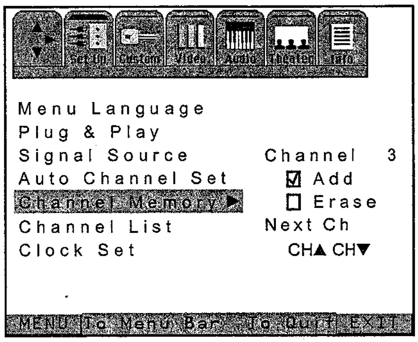
Adjustment Preparation

(1) Set to Channel Memory mode (Set up Menu).

Adjustment Procedure

(1) Check the selection of Add, Erase by pressing the ▲(▼) button.

SET UP MENU


Set Up
Custom
Video
Audio
Theater
Info
Menu Language
Plug & Play
Signal Source
Auto Channel Set
Channel Memory ▶
Channel List
Clock Set
Next Ch
CH▲ CH▼
MENU To Menu Bar To Quit EXIT

Channel 3

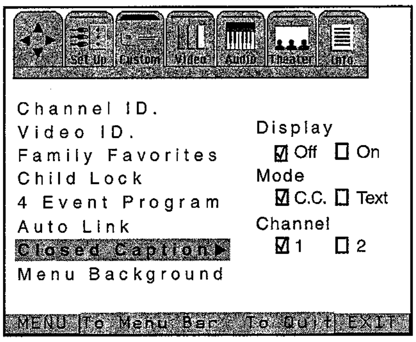
☑ Add

☐ Erase

Adjustment Preparation

(2) a. Set the mode to Closed Caption (Custom Menu).
b. Receive signal having Closed Caption signal.

CUSTOM MENU


Set Up
Custom
Video
Audio
Theater
Info
Channel ID.
Video ID.
Family Favorites
Child Lock
4 Event Program
Auto Link
Closed Caption ▶
Menu Background
MENU To Menu Bar To Quit EXIT

Display ☑ Off ☐ On

Mode ☑ C.C. ☐ Text

Channel ☑ 1 ☐ 2

Adjustment Procedure

(1) Set Display setting to On with ▶ button.
At this time, set the other settings as follows.
1. Display : On
2. Mode : C.C.
3. Channel : 1

(2) Check that the Caption corresponding to the above setting is displayed on the screen.

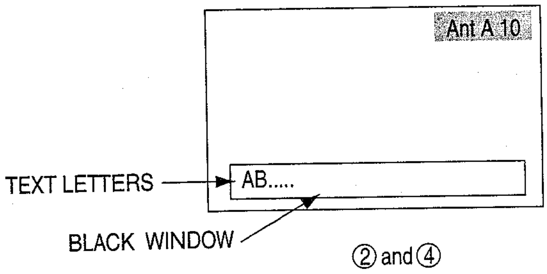
(3) Set Channel to 2.

(4) Check that the Caption of Channel 2 is displayed on the screen.

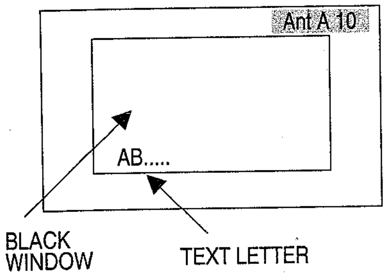
(5) Set Channel to 1.

(6) Check that the Caption of Channel 1 (Field 2) is displayed on the screen.

(7) Set the mode to Text.


Ant A 10
TEXT LETTERS
AB.....
BLACK WINDOW
②and④

(8) Check that a black window appears and text letters are displayed at the center of the screen.
(9) Repeat adjustment procedure from (3) to (6), and check that text letters are displayed corresponding to each mode.
(10) Set the mode to Caption.
(11) The black window should disappear retuning to the state of (2).
(12) Set On/Off to Off.
(13) Check that the Caption letters disappear.


Ant A 10
AB.....
BLACK WINDOW
TEXT LETTER

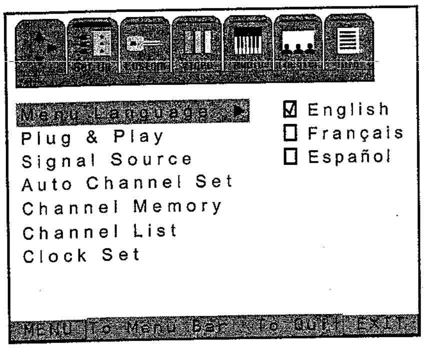
Adjustment Preparation

(3) Set to Menu Language mode (Set up Menu).

Adjustment Procedure

(14) Check the language selection (English, French, Spanish) by pressing the ▲(▼) button.

SET UP MENU



Menu Language ▶ ☑ English
Plug & Play ☐ Français
Signal Source ☐ Español
Auto Channel Set
Channel Memory
Channel List
Clock Set

MENU To Menu Bar To Quit EXIT

2-7-2 Program Mode

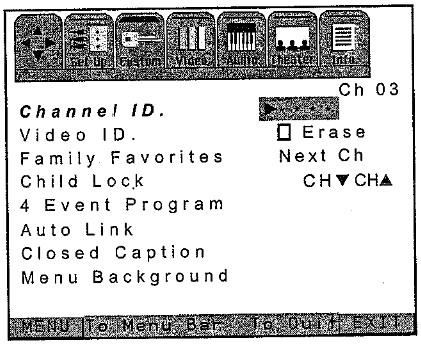
Adjustment Preparation

(1) Set to Channel ID mode (Custom Menu).

Adjustment Procedure

(1) Select the "A" by pressing the ▲▼ button, and select the input position by pressing the ▶ ◀ button.
(2) After pressing the Enter button, check that the indication of "AAAA" is the same as CH No. indication.
(3) Select the Channel ID mode again. Select the "Erase" by pressing the ▲▼ button and press the ▶ button.
(4) Check that the delete of "AAAA" when indicate the CH No., after press the "Recall" button.

CUSTOM MENU



Set Up
Custom
Video
Audio
Theater
Info

Ch 03
Channel ID.
Video ID. ☐ Erase
Family Favorites Next Ch
Child Lock CH▼CHA▲
4 Event Program
Auto Link
Closed Caption
Menu Background

MENU To Menu Bar To Quit EXIT

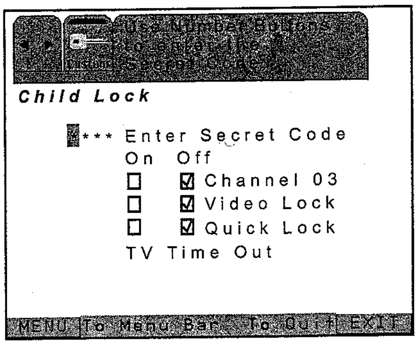
Adjustment Preparation

(2) Set to Child Lock mode.

Adjustment Procedure

(1) Select Child Lock by ▶ button.
(2) Press "0" button 4 times. ("0000" is input.)
(3) Select channel mode, and set to on by ▶ button, check that the picture becomes pitch-dark, and sound does not come out.
(4) Set to Child Lock mode again.
(5) Select channel mode and set to off by ▶ button.
(6) Check that the picture and sound return to the previous condition.

CUSTOM MENU



Custom
Use Number Buttons to enter the Secret Code.

Child Lock

**** Enter Secret Code
On Off
☐ ☑ Channel 03
☐ ☑ Video Lock
☐ ☑ Quick Lock
TV Time Out

MENU To Menu Bar To Quit EXIT

Adjustment Preparation

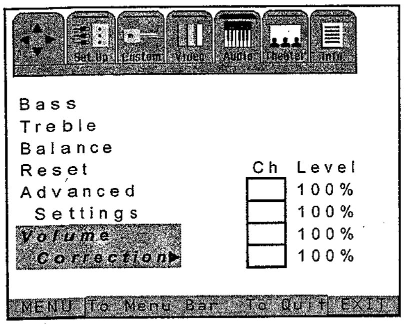
(3) Set Volume Correction mode (Audio Menu).

Adjustment Procedure

(1) Select the registration point using ▲▼ button and received channel no. is memorized by pressing number buttons.
Note: By key-in "0", "4," then 4CH can be memorized.

(2) Check that Volume level changes and sets 100%~50% (5% step) using ▲▼ button.

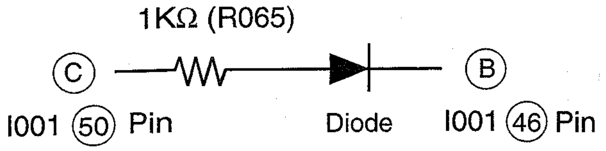
AUDIO MENU


Set Up
Custom
Video
Audio
Theater
Info
Bass
Treble
Balance
Reset
Advanced Settings
Volume Correction▶
Ch Level
100%
100%
100%
100%
MENU To Menu Bar To Quit EXIT

2-7-3 Clock Mode (Clock Operation Check)

Adjustment Preparation

(1) Connect diode (1S2076, 1SS270TA equivalent) between Ⓒ and Ⓑ.

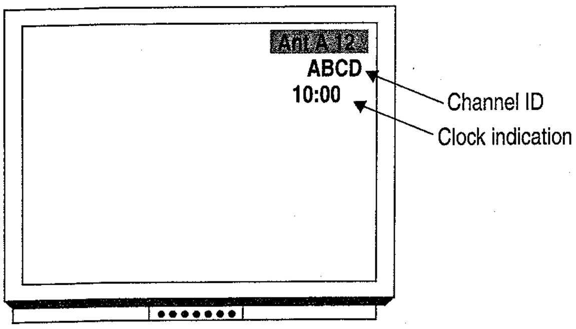

1KΩ (R065)
Ⓒ
Ⓑ
I001 (50) Pin
Diode
I001 (46) Pin

Remarks: The addition of the above diode intends to check the operation with clock counting operation as 60 times mode.

(2) Set to Clock Set Mode (set up mode).

Adjustment Procedure

(1) After clock setting is done and the indication disappears, perform CH indication. Check that clock indication is displayed in addition to the CH indication, and that the clock indication is going by 1 second per minute.


Ant A 12
ABCD
10:00
Channel ID
Clock indication

2-7-4 Picture Mode

Adjustment Preparation

(1) Receive color bar signal.

(2) Press MENU key, and select VIDEO menu

(3) Set to Contrast mode.

Adjustment Procedure

(2) Check that Contrast is changed by pressing control ◀/▶ buttons.

Adjustment Preparation

(3) Set to Brightness mode.

Adjustment Procedure

(3) Check that Brightness is changed by pressing control ◀/▶ buttons.

Adjustment Preparation

(4) Set to Color mode.

Adjustment Procedure

(4) Check that Color is changed by pressing control ◀/▶ buttons.

Adjustment Preparation

(5) Set to Tint mode.

Adjustment Procedure

(5) Check that Tint is changed by pressing control ◀/▶ buttons.

Adjustment Preparation

(6) Set to Sharpness mode.

Adjustment Procedure

(6) Check that Sharpness is changed by pressing contrl ◀/▶ buttons.

Adjustment Preparation

(7) Set to Color temp. mode.

Adjustment Procedure

(7) Check that White control is changed by pressing ▶ buttons.

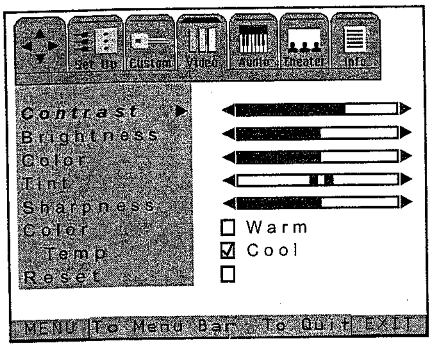
Adjustment Preparation

(8) Set to Reset mode.

Adjustment Procedure

(8) Check that all picture setting modes return to delivery settings by pressing ▶ buttons.

VIDEO MENU


Set Up
Custom
Video
Audio
Theater
Info
Contrast
Brightness
Color
Tint
Sharpness
Color Temp
Reset
☐ Warm
☑ Cool
☐
MENU To Menu Bar To Quit EXIT

2-7-5 Sound Mode

Adjustment Preparation

(1) Press MENU key, and select AUDIO menu.
(2) Set to Bass mode.

Adjustment Procedure

(1) Check that Bass is changed by pressing control ◀/▶ buttons.

Adjustment Preparation

(2) Set to Treble mode.

Adjustment Procedure

(2) Check that Treble is changed by pressing control ◀/▶ buttons.

Adjustment Preparation

(3) Set to Balance mode.

Adjustment Procedure

(3) Check that Balance is changed by pressing control ◀/▶ buttons.

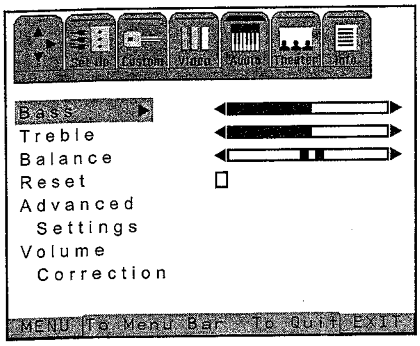
Adjustment Preparation

(4) Set to Reset mode.

Adjustment Procedure

(4) Check that all sound setting modes return to delivery settings by pressing ▶ button.

AUDIO MENU


Set Up
Custom
Video
Audio
Theater
Info
Bass
Treble
Balance
Reset
Advanced Settings
Volume Correction
☐
MENU To Menu Bar To Quit EXIT

Adjustment Preparation

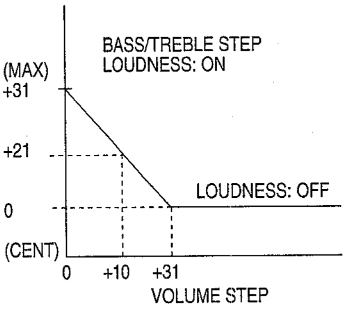
(5) a. Set to "Volume" step at *10 set to "Bass" and "Treble" at center when "Loudness" is turned off. Set to "Loudness" mode. (Audio menu, Advanced Settings)
b. Set Loudness to off, and Bass/Treble to center.
c. Set to Loudness mode.

Adjustment Procedure

(5) Check that "Bass" and "Treble" are changed as below table when set to "Loudess" turned on by pressing ◀/▶ button Loudness off after checked.

LOUDNESS	BASS	TREBLE
OFF	CENTER	
ON	+21 STEP	

(When volume set to 10)
After checking, set Loudness to Off.



*Note
According to Volume setting level, this function works as shown left figure

Adjustment Preparation

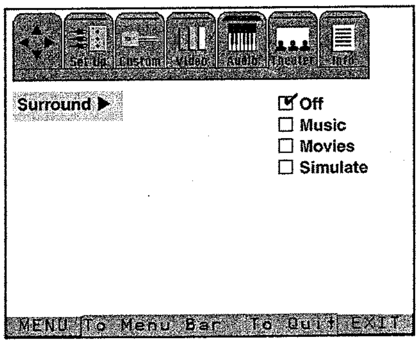
(6) a. Input stereo sound signal to Video : 1 terminals, and set "Video : 1" by Input button.
b. Set to Surround mode (theater mode): 36CX35B/CZ73, 36FX42B/CZ75 and 32FX41B/CY75
b'. Set to SRS mode (theater mode): 36UX52B/CZ77 and 32UX51B/CY77.

Adjustment Procedure

(Not for 36UX52B/CZ77 or 32UX51B/CY77)

(6) Check that sound becomes louder when set Music or Movie mode by ▲/▼ and ▶ button.

THEATER MENU


Set Up
Custom
Video
Audio
Theater
Info
Surround ▶
☑ Off
☐ Music
☐ Movies
☐ Simulate
MENU To Menu Bar To Quit EXIT

Adjustment Preparation

(Only for 36UX52B/CZ77 and 32UX51B/CY77)

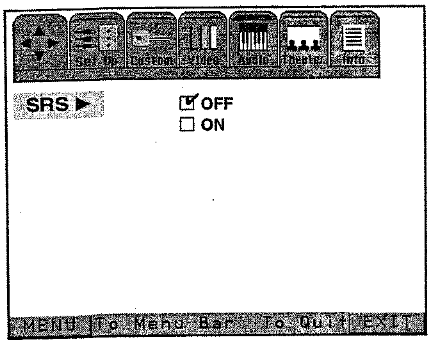
(7) a. Input stereo sound signal to Video : 1 terminals, and set "Video : 1" by Input button.

b. Set to SRS mode.

Adjustment Procedure

(7) Check that sound becomes louder when set Off to On mode by ▲/▼ and ▶ button.

THEATER MENU


Set Up
Custom
Video
Audio
Theater
Info
MENU To Menu Bar
To Quit EXIT

SRS ▶

☑ OFF
☐ ON

2-7-6 Auto Link Mode

Adjustment Preparation (Auto mode)

(1) Set Auto Link mode (Custom mode) to Auto mode (set V1, V2, V3, all).
(2) Turn off set.

Adjustment Procedure

(1) Input Video Signal to Video : 1 Input.
(2) Check that set turns on with Video : 1 mode.
(3) Turn off set.
(4) Input Video Signal to S-in Input.
(5) Check that set turns on with S-in mode.
(6) Turn off set.
(7) Check same as above to Video : 2 and Video : 3.

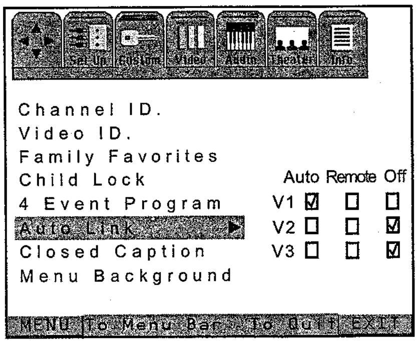
Adjustment Preparation (Remote mode)

(1) Set Auto Link mode to Remote mode (V1, V2, V3 all).
(2) Turn off set.

Adjustment Procedure

(1) Transfer Remo-con code to the set (except Power key).
(2) Input Video Signal to Video : 1 within 5 seconds from (1).
(3) Check that set turns on with Video : 1 mode.
(4) Turn off the set.
(5) Apply same check as (1) ~ (4) to S-in ~ Video : 3.

CUSTOM MENU


Set Up
Custom
Video
Audio
Theater
Info
Channel ID.
Video ID.
Family Favorites
Child Lock
4 Event Program
Auto Link ▶
Closed Caption
Menu Background
MENU To Menu Bar
To Quit EXIT

	Auto	Remote	Off
V1	☑	☐	☐
V2	☐	☐	☑
V3	☐	☐	☑

V. DEFLECTION CIRCUIT PICTURE ADJUSTMENT OPERATION CHECK

1. HIGH VOLTAGE LIMITER CIRCUIT OPERATION CHECK AND OVER VOLTAGE PROTECTION CIRCUIT OPERATION CHECK.

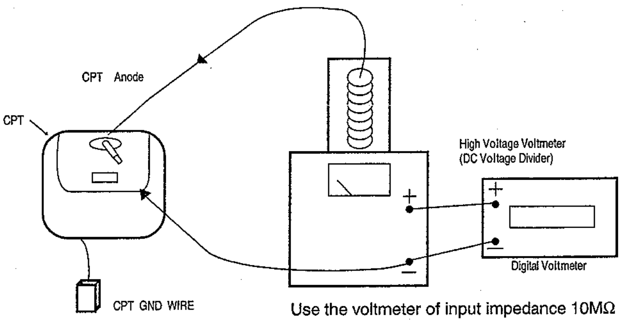
Adjustment Preparation

(1) Connect a high voltage voltmeter between CPT anode terminal (Anode cap side) and the ground as below.
(2) Set AC input voltage to 120±3V.
(3) Receive Hitachi circle pattern and set "Bright" and "Contrast" to max.
Adjust Screen VR so that beam current is I_B±0.1mA.
(The voltage of ABL teminal-C747 both ends should by 12V or less.)

Adjustment Procedure

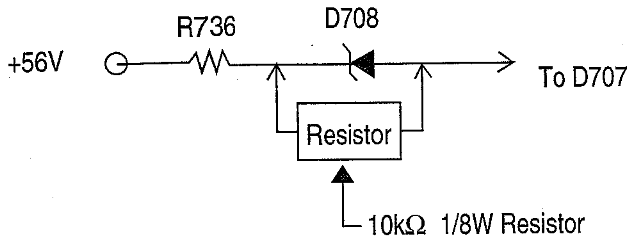
(1) Check that the normal high voltage and +B voltage as below.

CHASSIS	EHT±1KV	1B±0.1mA	+B
CZ77/CZ75/CZ73	30.0KV	1.80mA	130±.3V
CY77/CY75	29.6KV	1.50mA	130±.3V


CPT Anode
CPT
High Voltage Voltmeter
(DC Voltage Divider)
+
−
+
−
Digital Voltmeter
CPT GND WIRE

Use the voltmeter of input impedance 10MΩ or more with indication to the first decimal place.

(2) Connect a 10kΩ 1/8W Resistor to both ends of D708 and check that power is turned off.


+56V
R736
D708
To D707
Resistor
10kΩ 1/8W Resistor

(3) Disconnect the AC plug and remove 10kΩ 1/8W Resistor.

2. FBT PROTECTION CIRCUIT OPERATION CHECK

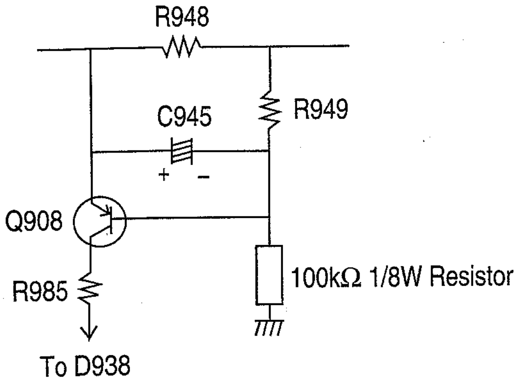
Adjustment Preparation

(1) Set "Contrast" to maximum, "Brightness" to center.

Adjustment Procedure

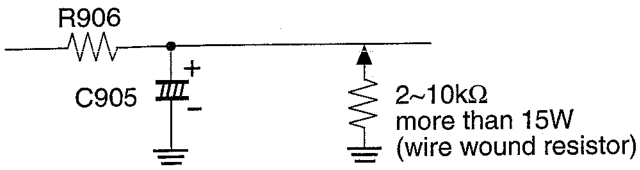
(1) Connect a 100kΩ 1/8 Resistor between Q908 base and ground, check that picture disappears. See Figure A.

Figure A


R948
C945
R949
Q908
R985
100kΩ 1/8W Resistor
To D938

(2) Immediately after checking, disconnect the power cord of the set.

(3) Discharge C905 as follows.


R906
C905
2~10kΩ
more than 15W
(wire wound resistor)

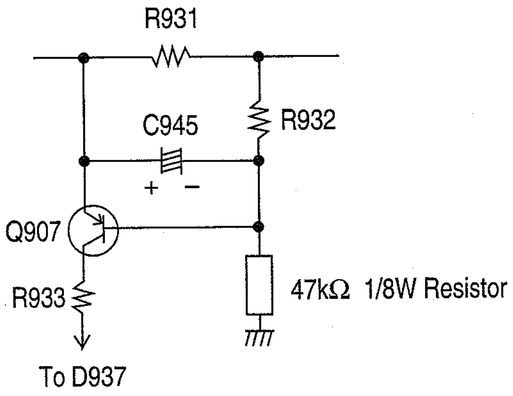
3. CHECK +18V SHORT PROTECTION CIRCUIT.

Adjustment Preparation

(1) Set "Contrast" to maximum, "Bright" to center.

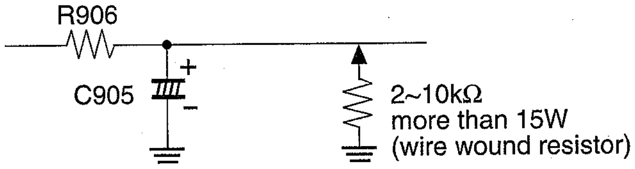
Adjustment Procedure

(1) Connect a 47kΩ 1/8W Resistor between Q907 base and ground, check that picture disappears.


R931
C945
R932
Q907
R933
47kΩ 1/8W Resistor
To D937

(2) Immediately disconnect the power cord.

(3) Discharge C905 as follows.


R906
C905
2~10kΩ
more than 15W
(wire wound resistor)

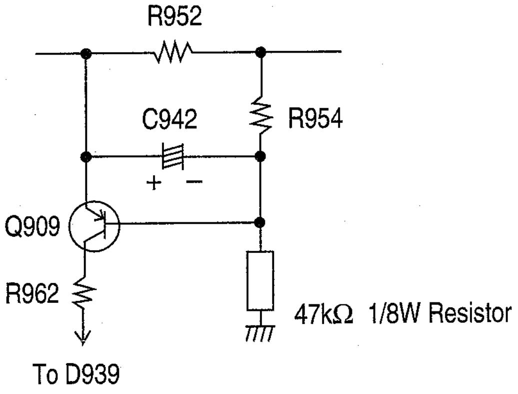
4. CHECK +14V SHORT PROTECTION CIRCUIT

Adjustment Preparation

(1) Set "Contrast" to maximum, "Brightness" to center.

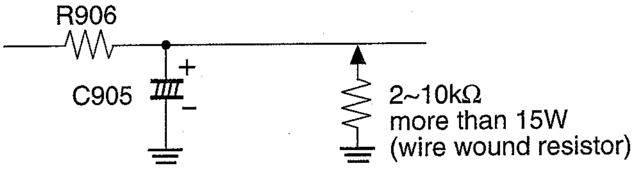
Adjustment Procedure

(1) Connect a 47kΩ 1/8 W Resistor between Q909 base and ground, check that picture disappears.


R952
C942
R954
Q909
R962
47kΩ 1/8W Resistor
To D939

(2) Immediately disconnect the power cord.

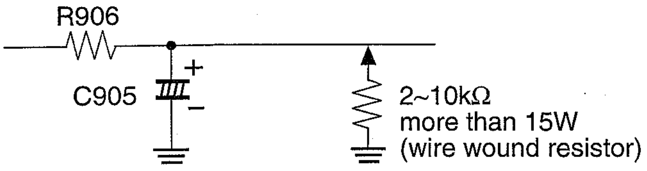
(3) Discharge C905 as follows.


R906
C905
2~10kΩ
more than 15W
(wire wound resistor)

5. LOAD SHORT PROTECTION CIRCUIT OPERATION CHECK.

Adjustment Procedure

(1) Receive circle pattern signal.
(2) Set “Contrast” to maximum, “Brightness” to center.
(3) After turning on the CTV set, confirm the DC voltage of D019, D00F, D753 and D952, each cathode side. These voltages should be 6V±1.0V.
(4) Short-circuit both ends of R961 and check that the picture disappears within 2~3 sec.
(5) Disconnect short-circuit of R961 and the power cord.
(6) Discharge C905 as follows.



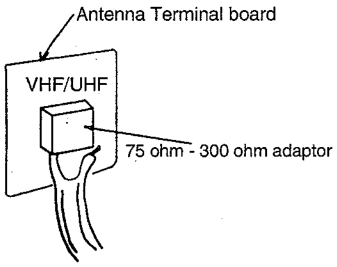
6. WEAK ELECTRIC FIELD CHECK

Adjustment Preparation

(1) Connect one side of the 300 ohm feeder to 75 ohm ~ 300 ohm antenna adaptor. Connect the antenna adaptor to the VHF antenna terminal board as shown below.
(2) Turn to no signal condition.

Adjustment Procedure

(1) Check that the phenomena such as oscillation and abnormal beat, etc. do not occur in all the channel.



VI. REMO-CON OPERATION CHECK

1. DIRECT CHANNEL SELECTION

Adjustment Procedure

(1) Input 2 or 3 digits of channel number with the buttons of the Remo-con “0–9.” Check that the input number and the on-screen display number are the same. (At 100CH selection, press “1” and after 2 seconds, press “0” two times.

1 —→ 1 ——

After
2 seconds

2. LST-CH (LAST CHANNEL RECALL)

Adjustment Procedure

(1) Check that the set receiver alternates between the channel which is being received and the channel which was previously received with each press of the “LST-CH” button of the Remo-con.

3. MUTE

Adjustment Procedure

(1) Check that the sound alternates between mute and mute free with each press of the “Mute” button of the Remo-con.
At this time, check that the indication color alternates between yellow (letters : green) and magenta.

4. RECALL

Adjustment Procedure

(1) Check that on-screen channel no. indication alternates between On and Off with each press of the “Recall” button of the Remo-con.

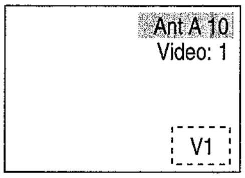
5. P IN P

Adjustment Preparation

(1) Connect signal to ANT A and receive it.
(2) Connect signal to Video:1 Input.

Adjustment Procedure

(1) Check that with each press of the “PinP” button of Remo-con, sub-picture alternates between On and Off. When sub-picture is On, check that the channel numbers are displayed as below.



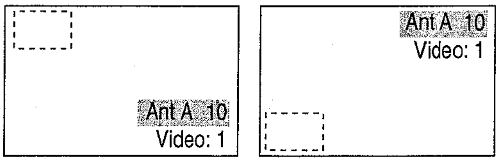
6. MOVE

Adjustment Preparation

(1) Press “PinP” button to set to PinP mode.

Adjustment Procedure

(1) Check that with each press of the Move button of Remo-con, sub-picture moves counterclockwise.
Note: When sub-picture is in the upper left of the screen, the channel number of main picture comes to the lower right, as shown below.



. SWAP

djustment Preparation

1) Press “PinP” button to set to PinP mode.

djustment Procedure

1) Check that with each press of the “SWAP” button, the contents of main picture and sub-picture are exchanged.

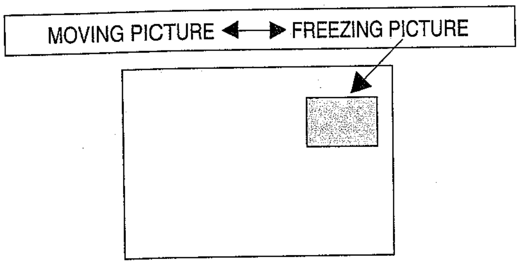
. FREEZE

djustment Preparation

1) Connect the signal to ANT A and video. (One or both of the pictures should be moving picture.)
2) Press “PinP” button to set to PinP mode.
3) Sub-picture should be moving picture.

Adjustment Procedure

(1) Check that with each press of the “Freeze” button, sub-picture alternates between moving picture and freezing picture.



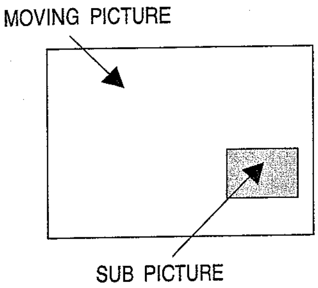
(2) Press “PinP” button to make sub-picture disappear.

Adjustment Preparation

(1) Connect signals to ANT A and Video Input. Both signals should be moving picture.
(2) Set PinP to off.

Adjustment Procedure

(1) Check that freezing picture of main screen appears by pressing Freeze button of the Remo-con.
(2) check it also in the TV and Video modes.
(3) Check that sub-picture disappears by pressing Freeze button at picture freezing.
(4) Check that it turns to normal PinP sub-picture by pressing PinP button at picture freezing.



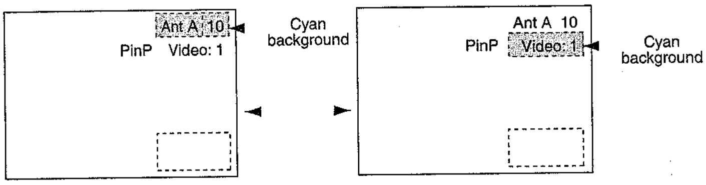
9. PINP CH (EXCEPT 36CX35B/CZ73)

Adjustment Preparation

(1) Connect the signal to ANT A and Video : 1.
(2) Press “PinP” button to set to PinP mode.

Adjustment Procedure

(1) Check that OSD changes as follows by pressing “PIP CH” button.



(Main mode) (PinP mode)

(2) Set PIP CH to PinP mode.
(3) Check that PinP sub-picture changes by channel (▲) (▼) and “Input” key and receives normal picture.

VII. MEMORY INITIALIZE (2)

After all of the adjustments of main chassis are finished, perform memory initialize. (Operation in Item III.)

VIII. FINAL ASSEMBLY ADJUSTMENT/ COMMON SERVICE ADJUSTMENT

1. PURITY CONVERGENCE ADJUSTMENT

Note: For ITC type A90AHH50X01 and A90AFX15X01 only, apply item 1.2 (8) (Purity check). For A80LJF30X(W), apply item 1.1-1.2 (8).

1-1 Adjustment Preparation

(1) Keep DY sticked to CPT funnel.
(2) Turn ON the set and receive cross-hatch signal (or circle pattern signal). Adjust the static convergence coarsely according to item (VIII, 1-4).
(3) Receive circle pattern signal and adjust the white balance according to item 4-11.
(4) Set BRIGHTNESS control and CONTRAST control to maximum and apply heat-run to the set with circle pattern signal received for 40 min or more.

1-2 Purity Adjustment

THIS ADJUSTMENT METHOD APPLIES TO THE PURITY ADJUSTMENT BY USING MICROSCOPE.

(1) Adjust coarsely White balance, Static convergence (center) and Focus.
(2) Receive circle pattern and heat-run more than T minutes with CONTRAST and BRIGHTNESS to maximum. Do not delete the raster nor vary the current before fixing the position of DY. Heat-run should be done with perfect raster. (DY and tilt should have been coarsely adjusted.)

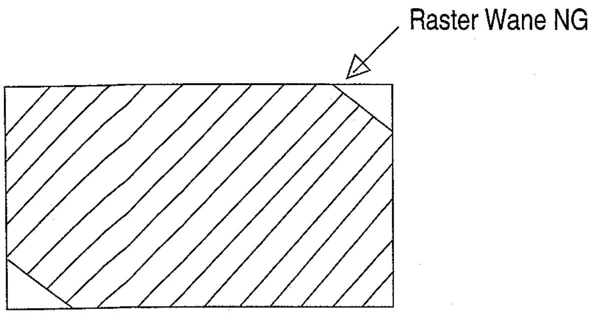

Raster Wane NG

TABLE 1

CPT	T
A80LJF30X	40 Min.
A90AHH50X01	40 Min.
A90AFX15X01	40 Min.

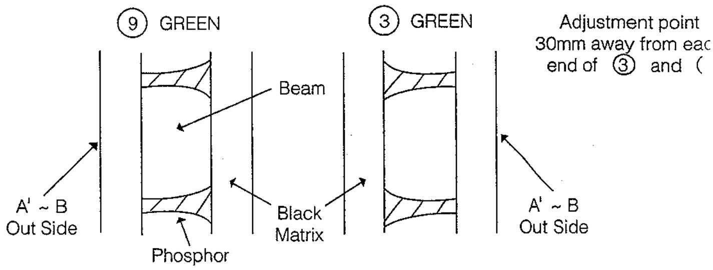
(3) The magnetic field in artificial magnetic field should follow the table below and the set should face as in Table 2. Degauss it from outside.

DESTINATION	VERTICAL FIELD	HORIZONTAL FIELD
USA	0.45 G	0.3 G
CANADA	0.54 G	0.15 G
UNIVERSAL	0.35 G	0.3 G
PANAMA, HAWAII	0.2 G	0.3 G

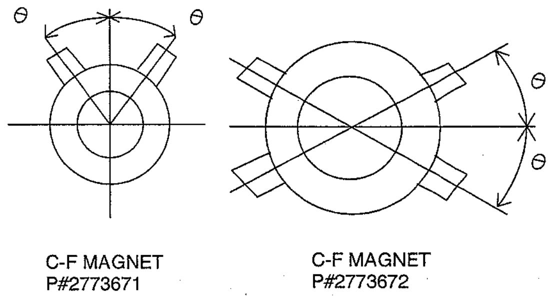
TABLE 2
Directions for adjustment

A80LJF30X (W)	North

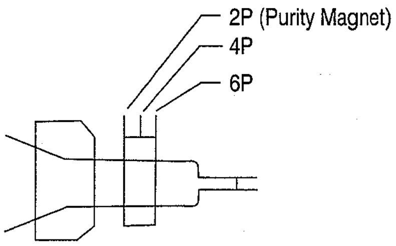
(4) Adjust the position of purity magnet and DY. Keep the landing balance of ③ and ⑨, and adjust so that the landing of ③ and ⑨ is as follows while observing with a microscope.


⑨ GREEN
③ GREEN
Adjustment point
30mm away from eac
end of ③ and (
Beam
A' ~ B
Out Side
Black
Matrix
Phosphor
A' ~ B
Out Side

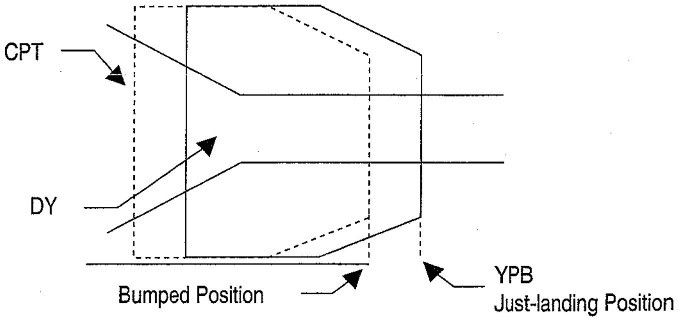
(a) Open the purity magnet as follows in order to move the raster only in the right-left direction.


θ
θ
θ
θ
C-F MAGNET
P#2773671
C-F MAGNET
P#2773672

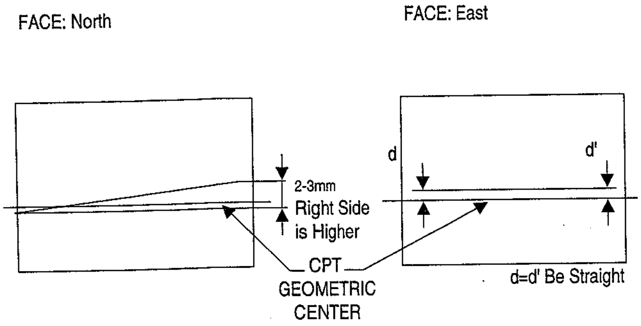
Keep the balance of ③/⑨ DY landing


2P (Purity Magnet)
4P
6P

(b) YPB (Yoke pull-back) should be as follows. (Distance between the bumped position of DY toward the funnel and the just-landing position of ③ and ⑨.)


CPT
DY
Bumped Position
YPB
Just-landing Position

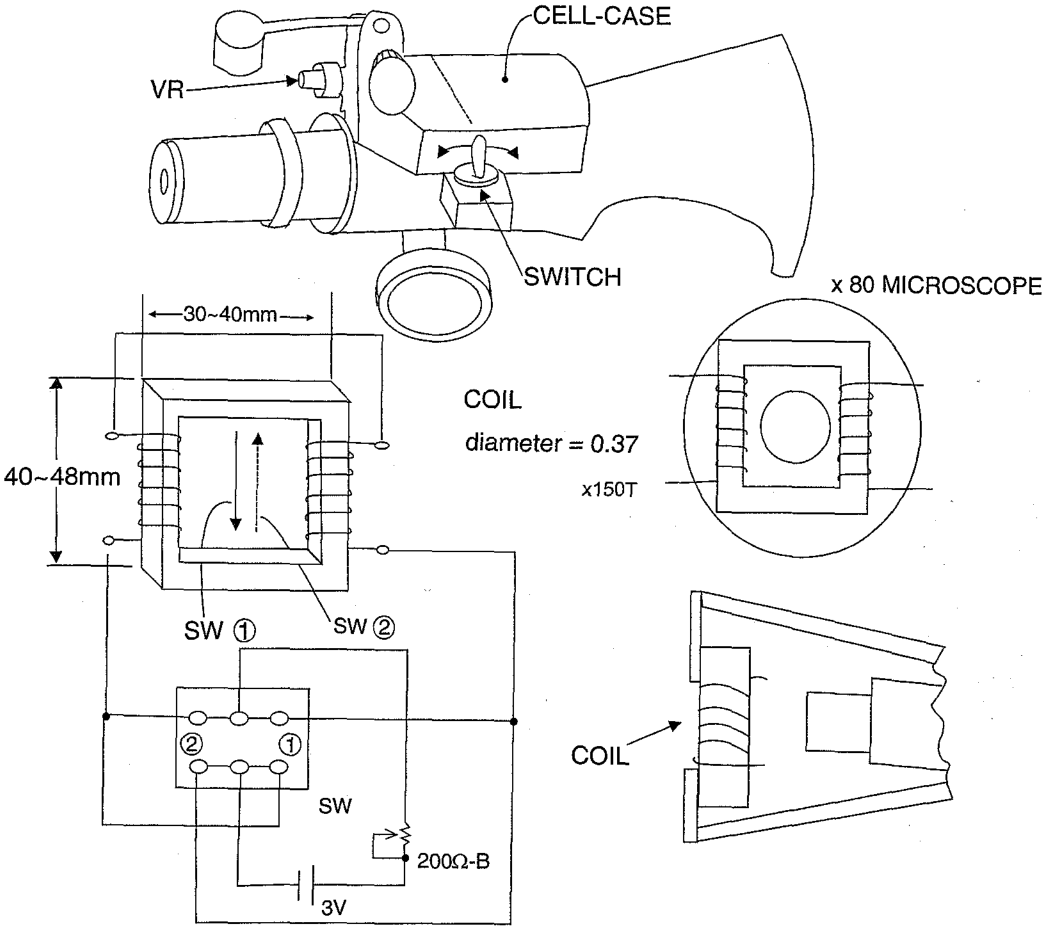
(c) DY tilt should be as follows.



(5) Fix DY with fixing torque of 14kg.cm.
Control the torque by an electric driver.
(6) If any miss landing occurs, correct with magnets.
If any want of 10μ or so, judge by white unevenness. At this time, if the white uneveness is all right, any magnet is not needed.
(7) After peripheral convergence is adjusted, check the position of DY and tighten the DY again. (14kg.cm)
(8) Purity check
The magnetic field in artifical magnetic field should follow the magnetic field according to the destination, and the set should face as follows.
After degaussing in each direction, check these items visually and with a microscope.
(a) No problem in white uneveness.
(b) Each single color must not hit any other colors.
(c) If white or each single color is defective, apply a magnet(s) on CPT for correction.
If any magnet is applied, check it after degaussing.

THE MICROSCOPE

Reference



Fix coil to CRT side of microscope. Set it upside down and measure it. Check that beam moves to the right and left equally in quantity. Be careful at assembly that core does not tilt because upward (downward) magnetic field by coil moves the beam to the right (left) or type MS-50X microscope of KANSAI DENKI.

1-3 Purity Adjustment (This adjustment method applies to purity adjustment by hand operation.)

(1) Use an artificial magnetic field and set the field strength as follows.
*Magnetic field in CPT axis direction: 0 Gauss
*Magnetic field which is vertical to CPT axis:

U.S.A., Hawaii, Panama, Guam Bolivia, Peru, Universal	0.3 Gauss
Canada	0.15 Gauss
Taiwan	0.37 Gauss

(The direction of the magnetic field should be from the left side to the right side of the CPT screen as you face it.)

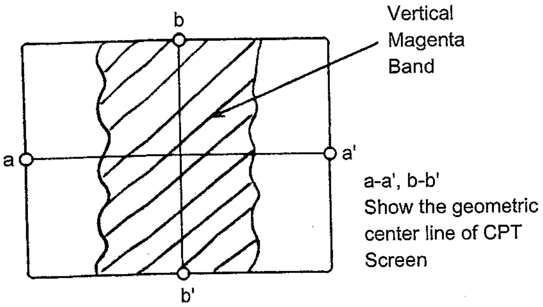
(2) Adjust Focus coarsely according to item 2.

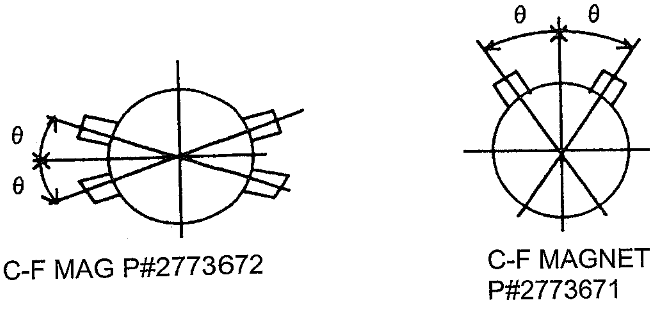
(3) Adjust Convergence coarsely according to item 1-4 and 1-5.

(4) Receive Circle Pattern signal and check that Contrast and Brightness are maximum.

(5) Receive magenta signal. When the magenta signal is not available, short-circuit between the base and emitter of Q855 and set to magenta.

(6) Press DY fully against CPT funnel and turn the purity magnet so that the vertical magenta band comes to the center of the picture (Fig. 1-3-1). Check that color uneveness of both sides are approximately equal at this time.
The openings of the purity magnet should be symmetric (Fig. 1-3-2).


b
Vertical
Magenta
Band
a
a'
a-a', b-b'
Show the geometric
center line of CPT
Screen
b'


θ
θ
C-F MAG P#2773672
θ
θ
C-F MAGNET
P#2773671

The openings of the purity magnet should be symmetric: on the right and left sides (P#2773671) on the upper and lower sides (P#2773672)

FIGURE 1-3-2

(7) Receive the single red signal.
When the single red signal is not available, short-circuit between the base and emitter of Q845, and between the base and emitter of Q857 and set to single red.

(8) Pull back DY gradually and when the color uneveness of both sides of the picture disppear, mark the rear edge position of DY on the tape wound around CPT neck as shown in Figure 1-3-3.
Pull back DY further and just before the color uneveness of both sides of the picture disappear, mark the rear edge position of DY on the tape in the same way.
At this time, pull back DY so that the center axis of DY and CPT axis match.

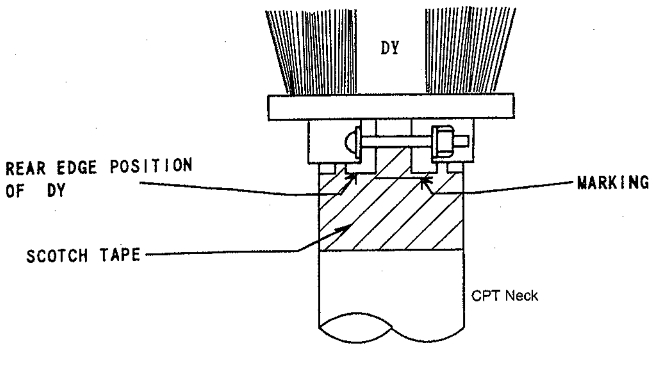
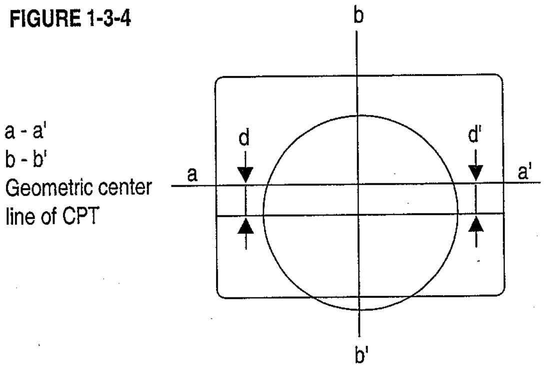

DY
REAR EDGE POSITION
OF DY
MARKING
SCOTCH TAPE
CPT Neck

FIGURE 1-3-3

(9) Move DY so that the rear edge position of DY comes to the center of the two marked lines and fasten DY as d=d' (Figure 1-3-4). Futher insert the rubber wedge between DY and CPT funnel from the top and raise DY backwards.

FIGURE 1-3-4


b
a - a'
b - b'
Geometric center
line of CPT
a
d
d'
a'
b'

(10) Set CPT axis direction magnetic field of the artificial magnetic field according tho the artificial magnetic field setting list classified by destination.
(The direction of the magnetic field should be from the CPT screen side to the neck side.)

(11) After degaussing it from outside, check the purity in each color to R, G and B visually.
Then, turn the screen to white and check the landing at the screen position shown in Fig. 1-3-5 with a microscope.

Criteria with microscope
There should be no miss landing at positions 2, 4, 8 and 10.
Green beam should be at center of the green phosphor at position C. (Refer to the miss landing criteria.)

(12) Turn over the direction of CPT axis direction magnetic field of the next artificial magnetic field and check it by the same way as item (11). The positions of miss landing criteria with a microscope should be 2, 4, 8 and 10 (Figure 1-3-5).

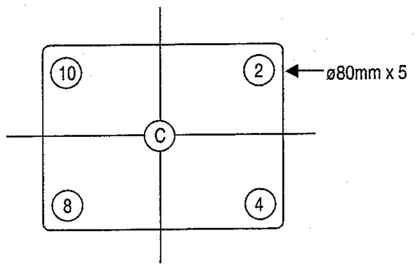

10
2
ø80mm x 5
C
8
4

FIGURE 1-3-5

Miss landing criteria
The following conditions are defined as miss landing. Each color beams shines on the phosphor of the applied color and there are phosphor parts which are not luminous (shaded parts in

the right figure) between the luminous parts and black matrix. Or, each color beam shines on the phosphor of not applied color.

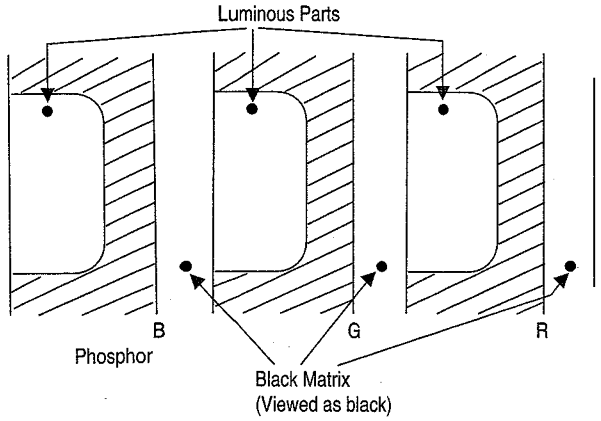

Luminous Parts
B
G
R
Phosphor
Black Matrix
(Viewed as black)

FIGURE 1-3-6 Enlarged view of screen with microscope

(13) To improve the miss landing mentioned above, it's acceptable to stick the permanent magnet to CPT funnel (Figures 1-3-7 and 1-3-8).

Usage

Apply a silicone rubber KE-40 WRTV to the permanent magnet shown in the Figure, adhere it to the CPT funnel and then fix it with permasel tape P212.

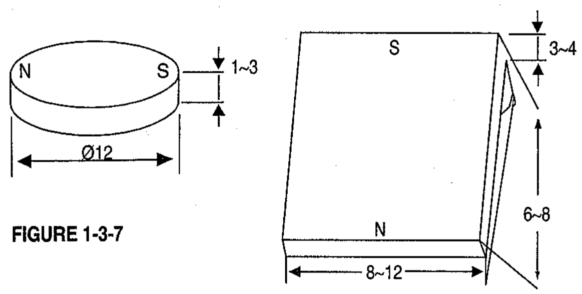
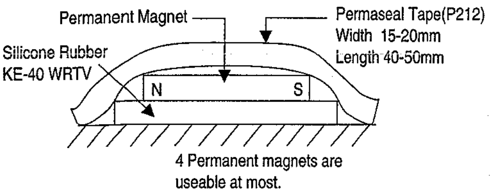

N
S
1~3
Ø12
S
N
3~4
6~8
8~12

FIGURE 1-3-7


Permanent Magnet
Permaseal Tape(P212)
Width 15-20mm
Length 40-50mm
Silicone Rubber
KE-40 WRTV
N
S
4 Permanent magnets are
useable at most.

(14) Final purity criteria should satisfy the miss landing criteria.

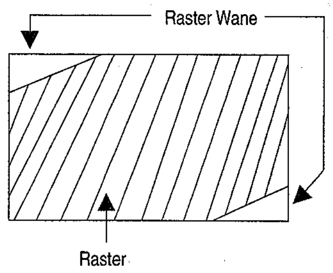
(15) When delivering the sets, set CPT axis direction magnetic field to 0 Gauss and degauss it from outside.

Table 3
Artificial magnetic field setting list classified by destination.

DESTINATION	Vertical Field	Horizontal Field
USA	0.45 G	0.3 G
CANADA	0.54 G	0.15 G
UNIVERSAL	0.35 G	0.3 G
PANAMA, HAWAII	0.2 G	0.3 G
TAIWAN	0.22 G	0.37 G

Notes for pre-heat

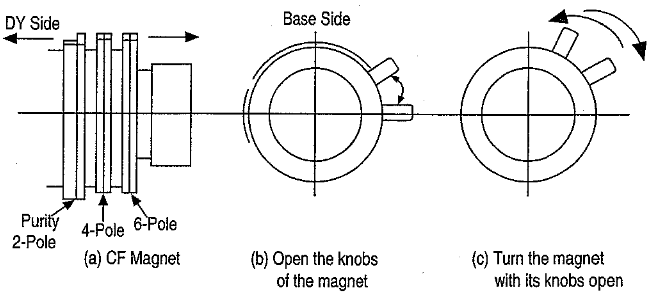
Before pre-heating, stick DY to CPT funnel and fix it so that the raster is perfect.


Raster Wane
Raster

If the raster is imperfect like the left figure, CPT neck is in danger of cracking because the beam may hit it.

1-4 Static Convergence Adjustment (Screen center part) (Except ITC CPT)

(1) Receive a cross-hatch signal and set Brightness to the center and Contrast to minimum.


DY Side
Base Side
Purity
2-Pole
4-Pole
6-Pole

(a) CF Magnet (b) Open the knobs of the magnet (c) Turn the magnet with its knobs open

FIGURE 1-4-1

(2) Open the knobs of 4-pole magnet (2 sheets) (Figure 1-4-1(b)) and match the blue/red vertical lines at the center of the screen as shown in Figure 1-4-2(a).

(3) Turn the 4-pole magnet with its knobs open (Figure 1-4-1(c)) and match the blue/red horizontal lines as shown in Figure 1-4-2(b).

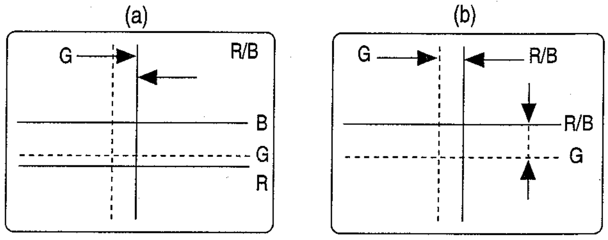

(a)
G
R/B
B
G
R
(b)
G
R/B
R/B
G

FIGURE 1-4-2

1-5 Dynamic Convergence adjustment (Except ITC CPT type)

(1) Insert an adjustment wedge (temporary) between the top of DY opening and CPT funnel as shown in Figure 1-5-1.
By inserting the wedge gradually, match the red and blue vertical lines at the top and bottom of the screen and also match the red and blue horizontal lines of both sides of the screen as shown in Fig. 1-5-2(a).

(2) Adjust by swinging in the right/left directions of DY while observing 6 and 12 horizontal lines of the screen and match the red and blue horizontal lines.
As shown in Fig. 1-5-2(b), when the blue is outside from the red on CPT screen, insert the DY fixing wedge between the right-side DY viewed from the rear of CPT and CPT funnel.

(3) As shown in Fig. 1-5-2(c), when the blue is inside from the red on CPT screen, insert the wedge between the left-side DY and CPT funnel.

(4) Insert two DY fixing wedge with approximately 120 to the fixing wedge inserted in item (2) or (3) and remove the adjustment wedge (temporary).
Use the DY fixing wedge after peeling off the tape. After proper location, press and adhere it to the funnel.

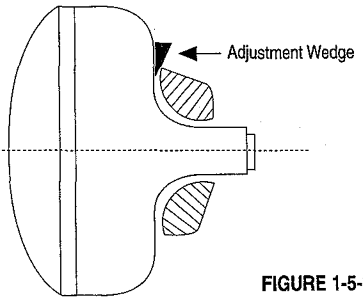
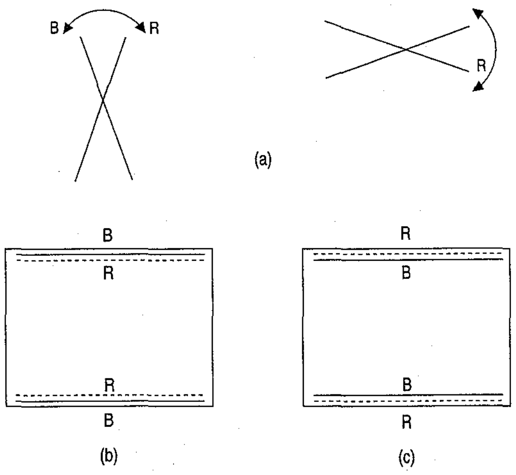


FIGURE 1-5-1



(a)

(b)

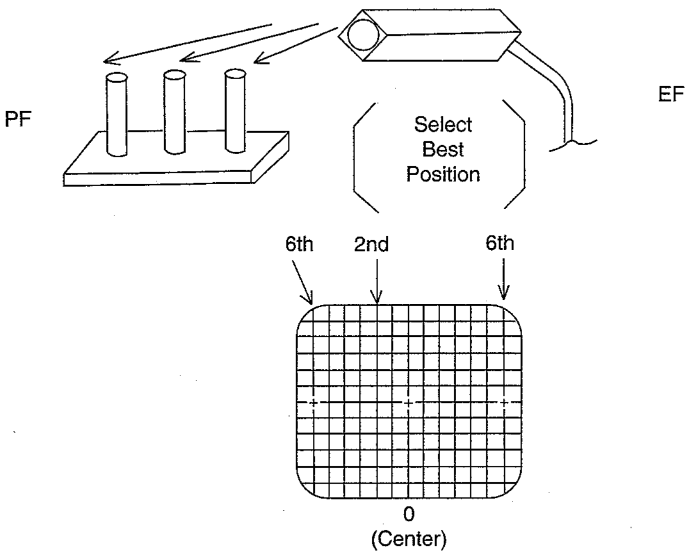
(c)

FIGURE 1-5-2

2. FOCUS ADJUSTMENT

NO.	MODEL	CPT	CONDITION	Focus VR setting position
1	32UX51B 32FX41B	A80LJF30X (W) (HED-US)	• Receive a cross-hatch signal • Picture control: Maximum • Sharpness control: Center • Brightness control: Where the background is set	Turn the Focus VR gradually clockwise from the full counterclockwise. Then set it to the point where the focus of center vertical line from the screen center becomes best.
2	36UX52B 36FX42B	A90AHH50X01 (Toshiba)	• Same as above	Turn the Focus VR gradually clockwise from the full counterclockwise. Then set it to the point where the focus of 2nd horizontal line from the screen center becomes best.
3	36CX35B	A90AFX15X01	• Same as above	Turn the Focus VR gradually clockwise from the full counterclockwise. Then set it to the point where the focus of the 5th vertical line from the screen center becomes best.

CAUTION: Insert the connector PF/EF on CPT PWB to minimize width of horizontal lines as follows (only for TOSHIBA 36V CPT).



IX. MATCHING CHECK WITH OTHER INSTRUMENTS

1. VIDEO:1 INPUT TERMINAL MATCHING CHECK

Adjustment Preparation

(1) Input the video signal to VIDEO 1 IN terminal. The video signal level should be within 1 ± 0.2 Vp–p (75 ohm termination) with 100% while signal at this time.
(2) Input the audio signal to the AUDIO 1 IN terminal. The audio signal level should be 400m Vrms ± 20m Vrms at this time. (Connect VCR or TV tuner.)
(3) Connect a monitor TV to the VIDEO OUT terminals and connect an audio AMP to the AUDIO OUT terminals. (Or connect VIDEO IN and AUDIO IN terminals of a standard monitor instead.)

Adjustment Procedure

(1) Check that the set receives signal when select the Input mode by pressing the Input (FUNCTION) button of front side of set or remote control.
(2) When external input is performed, the video and audio should not be abnormal.
The 100% while signal that RF input receives should be as bright as the video signal 1Vp–p (75 ohm termination).
As for the sound, when the 100% modulation that RF input receives is 25KHZ, DIV., the sound level should be as much as external audio signal (400 Vrms) level.
(3) Refer to the next item (IV, 2-2).

2. VIDEO 2 INPUT TERMINAL MATCHING CHECK

Adjustment Preparation

(1) Same as 1 (1).

Adjustment Procedure

(1) Check that the set receives signal at Input 2 mode.

3. VIDEO:3 INPUT TERMINAL MATCHING CHECK

Adjustment Preparation

(1) Same as 1 (1)

Adjustment Procedure

(1) Check that the set receives signal at Input 3 mode.

4. S-IN INPUT TERMINAL MATCHING CHECK

Adjustment Preparation

(1) Connect the video/chroma signal to S-IN terminal.
(2) Connect the sound signal to AUDIO input terminals.

Adjustment Procedure

(1) Check that the set receives signal at S-IN mode.

5. AUDIO OUT LEVEL CHECK

Adjustment Preparation

(1) Input the same audio signal at item 1(2) to AUDIO IN terminal (L). At this time, connect nothing to R terminal.
(2) Input the same audio signal as item 1(2) to AUDIO IN terminal (R). At this time, connect nothing to L terminal.
(3) Check that the normal sound is output from both sides of the speakers when signal in item (1) is input.
(4) Check that the normal sound is output from only the right (R) speaker when signal in item (2) is input.

Adjustment Procedure

(1) Check that the audio output of AUDIO AMP connected to AUDIO HiFi OUT terminal or monitor changes according to "VOLUME" of the set.
(2) Confirm that the output level of item (1) should be 1 Vrms (2.8 Vp–p) ± 20%.
(Above level is equivalent to VOL. MAX. 100% modulated signal input.)

X. SAFETY CHECK

1. POLARITY CHECK

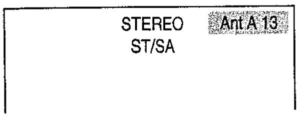
This check is performed according to UL standard requirement. There should be electricity between AC Power Cord and Chassis Earth.

XI. MTS OPERATION CHECK

1. STEREO/SA BROADCAST RECEIVING CHECK

Adjustment Preparation

(1) Set the TV set so that a MTS broadcast (STEREO/SAP) can be received.



(2) Set MTS mode to STEREO or SAP mode.
Note: To select between "STEREO/SAP," display sound setting of MTS mode and Select AUDIO MENU (Advanced settings).

(3) Set BALANCE to the center.

Adjustment Procedure

(1) When one of the MTS broadcast stereo SAP is received, check that "ST" or "SA" is displayed on the screen.

(2) Stereo broadcast receiving check
  (a) Select MTS mode and press cursor ▶ button to display "STEREO" on the screen.
  (b) When only Lch signal is received, Lch sound comes out from the left speaker.
  (c) When only Rch signal is received, Rch sound comes out from the right speaker.
  (d) When monaural signal is received, monaural sound comes out from both the right and left speakers.

(3) SAP broadcast receiving check
  (a) Select MTS mode. Press sound button to display "SAP" on screen.
  (b) SAP signal comes out from both of the right and left speakers.
  (c) When to SAP signal, the sound on "MAIN" side (refer to (3)) comes out.
Note: When the channel selection is performed or RECALL button is operated, "ST" or "SA" is shown below the channel no. (approx. for 8 sec.)

2. MTS MODE CHECK

Adjustment Preparation

(1) Set the TV set so that a MTS broadcast (STEREO/SAP) can be received.

(2) Set BALANCE to the center.

Adjustment Procedure

(1) When "MTS MODE" is set to "MONO" mode, check that STEREO and MONO indication which have been ON are turned OFF and that monaural sound comes out from the right and left speakers.

(2) When "MTS MODE" is set to "STEREO" side, check that STEREO and MONO indication which have been OFF are turned ON and that STEREO and SA sound can be received.

3. STEREO SEPARATION CHECK

Adjustment Preparation

(1) Set the set so that a MTS broadcast (STEREO/SA) can be received.

(2) Make surround "OFF" or SRS, depending on the TV model.

(3) Set MTS MODE to "STEREO."

(4) Connect AUDIO OUT terminals L and R to an oscilloscope.

Adjustment Procedure

(1) When stereo L only signal (or R only signal) is received, check that the output level ratio of Lch and Rch is 15dB or more.

(Example)
When L only is received (100% modulation)

CH	Output Level
L	1.2 Vpp
R	0.21 Vpp or less

XII. SETTING FOR DELIVERY

NAME	SPECIFICATION
SIGNAL SOURCE	ANTENNA ANT A **ANT B
RECEPTION CHANNEL	03 CH
SOUND VOLUME (VOL.)	"10" ON-SCREEN DISPLAY
INPUT SELECT	TV MODE (ANT A)
CONTRAST	MAX
COLOR	CENTER VALUE
TINT	SAME AS ABOVE
BRIGHT	SAME AS ABOVE
SHARPNESS	SAME AS ABOVE
COLOR TEMP.	COOL
BALANCE	CENTER VALUE
BASS	SAME AS ABOVE
TREBLE	SAME AS ABOVE
MTS MODE	STEREO
SRS *	OFF
SURROUND ***	OFF
LOUDNESS	OFF
DYNAMIC BASS *	OFF
VOLUME CORRECTION	NO SETTING
AUTO NOISE CANCEL	OFF
INT. SP	ON
P in P CH	TV (03) OFF
CLOSED CAPTION	OFF
CLOSED CAPTION MODE	C.C.
CLOSED CAPTION CHANNEL	1
P in P POSITION	RIGHT BOTTOM
MENU LANGUAGE	ENGLISH
CHANNEL ID	NO SETTING
FAMILY FAVORITES	NO SETTING
CHILD LOCK	NO INSTALL (KEY No.:0000)
CLOCK SET	NO INSTALL (00:00 AM JAN 01 1997)
4 EVENT PROGRAM	NO SETTING
CHANNEL MEMORY	03~13CH
SP EVENT REMINDER	NO SETTING
AUTO LINK	OFF (ALL MODE)
VIDEO ID	NO SETTING
PLUG & PLAY	A) (ALL PAGE)

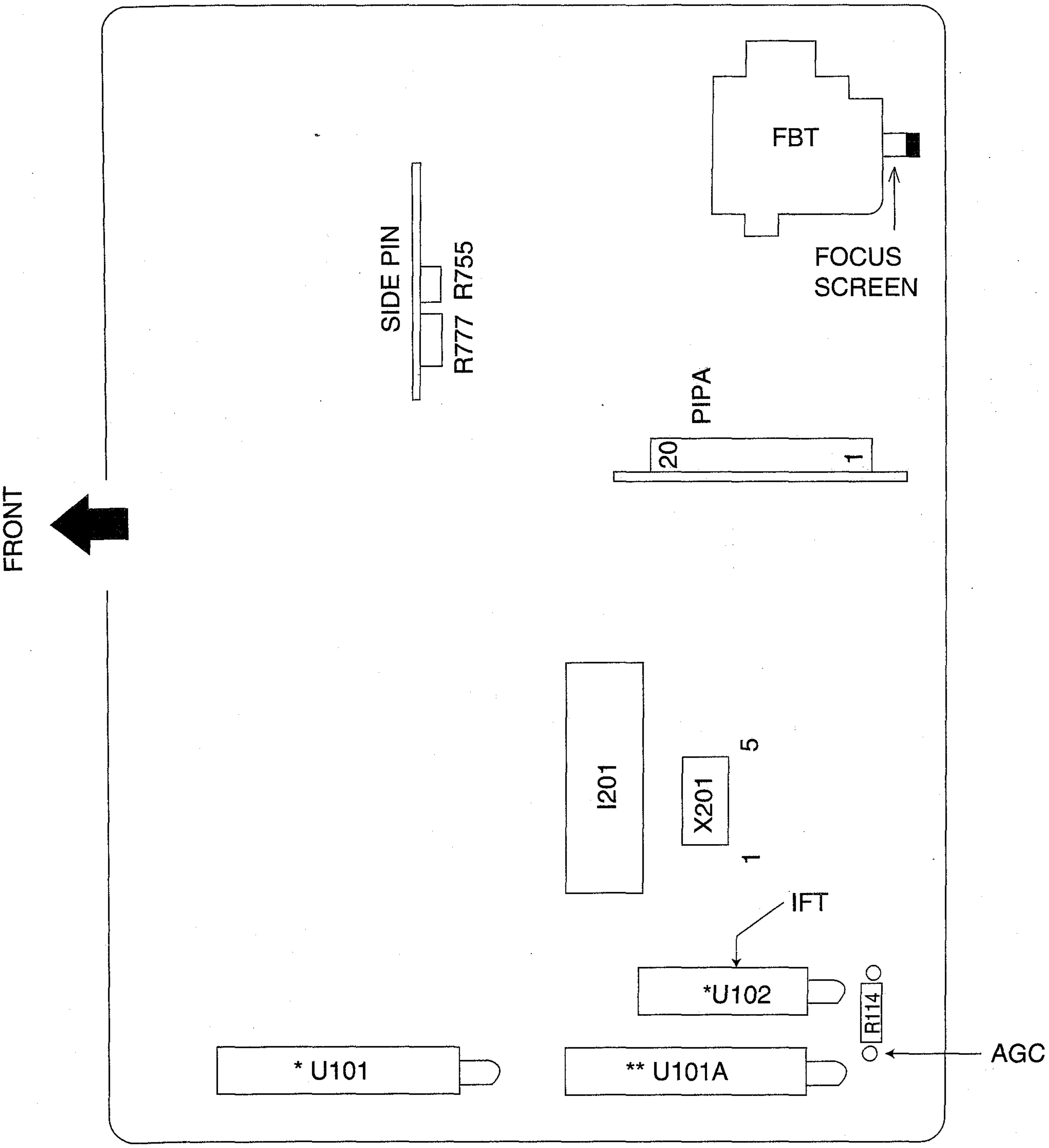
*Only for 36UX52B/CZ77 and 32UX51B/CY77

**Not for 36CX35B/CZ73

***Not for 36UX52B/CZ77 and 32UX51B/CY77

III. ADJUSTMENT POSITION LIST

. M7LXU CHASSIS

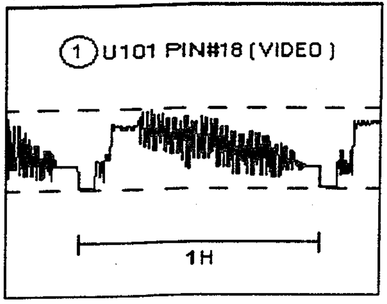

FBT
FOCUS
SCREEN
SIDE PIN
R755
R777
PIPA
20
1
FRONT
I201
X201
5
1
IFT
*U102
R114
AGC
* U101
** U101A

* Except 36CX35B/CZ73
** Only for 36CX35B/CZ73

WAVEFORMS AT EACH SECTION

Numbers inside circle correspond to locations shown in the circuit diagram.

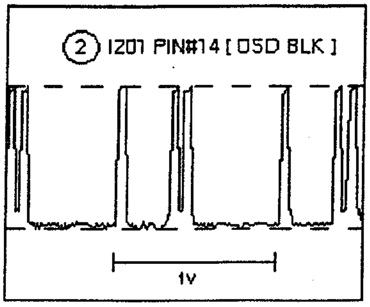
1v/Div 10µs/Div



① U101 PIN#18 (VIDEO)

v1(1)=4.9v v1(2)=4.2v Δv(1)=0.7v

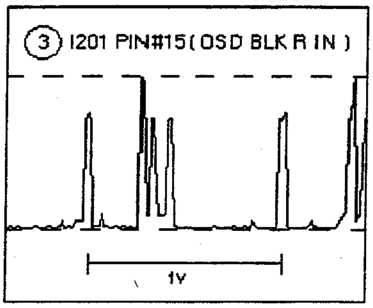
500mv/Div 5ms/Div



② I201 PIN#14 (OSD BLK)

v1(1)=2.6v v1(2)=0.0v Δv(1)=2.6v

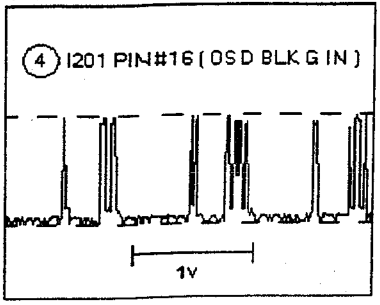
1v/Div 5ms/Div



③ I201 PIN#15 (OSD BLK R IN)

v1(1)=6.0v v1(2)=4.6v Δv(1)=1.4v

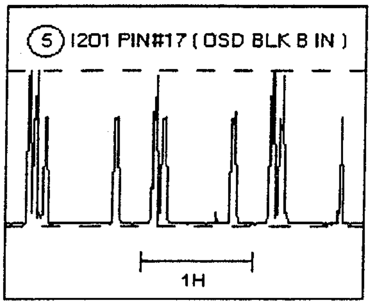
1v/Div 5ms/Div



④ I201 PIN#16 (OSD BLK G IN)

v1(1)=6.0v v1(2)=4.6v Δv(1)=1.4v

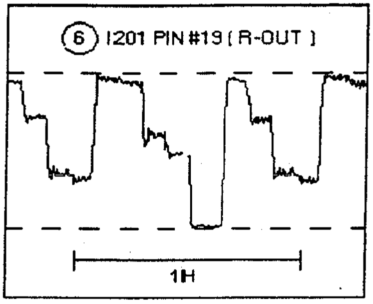
1v/Div 5ms/Div



⑤ I201 PIN#17 (OSD BLK B IN)

v1(1)=6.0v v1(2)=4.6v Δv(1)=1.4v

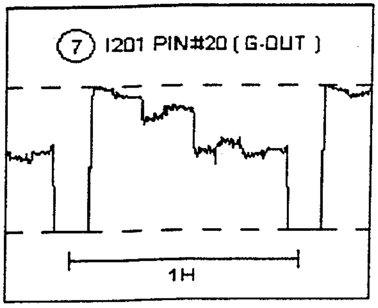
1v/Div 10µs/Div



⑥ I201 PIN#19 (R-OUT)

v1(1)=5.0v v1(2)=1.0v Δv(1)=4.0v

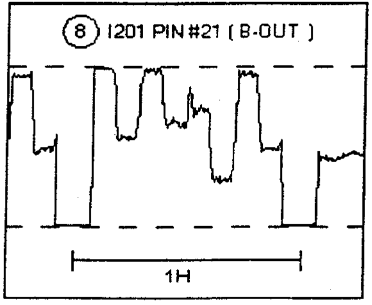
1v/Div 10µs/Div



⑦ I201 PIN#20 (G-OUT)

v1(1)=4.8v v1(2)=1.0v Δv(1)=3.8v

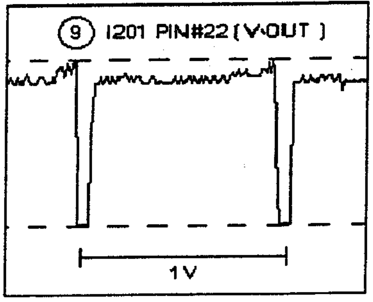
1v/Div 10µs/Div



⑧ I201 PIN#21 (B-OUT)

v1(1)=5.0v v1(2)=1.0v Δv(1)=4.0v

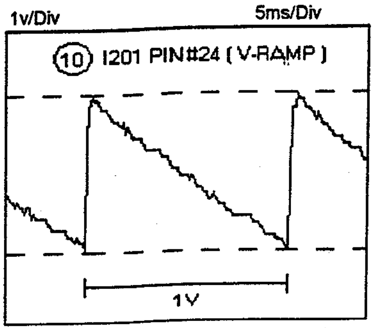
200mv/Div 5ms/Div



⑨ I201 PIN#22 (V-OUT)

v1(1)=0.8v v1(2)=0.0v Δv(1)=0.8v

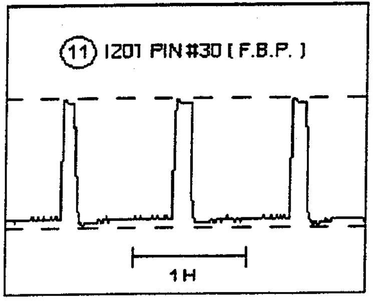
1v/Div 5ms/Div



⑩ I201 PIN#24 (V-RAMP)

v1(1)=6.0v v1(2)=4.0v Δv(1)=2.0v

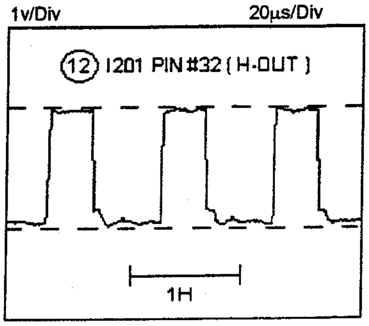
1v/Div 20µs/Div



⑪ I201 PIN#30 (F.B.P.)

v1(1)=6.6v v1(2)=0.0v Δv(1)= 6.6v

1v/Div 20µs/Div



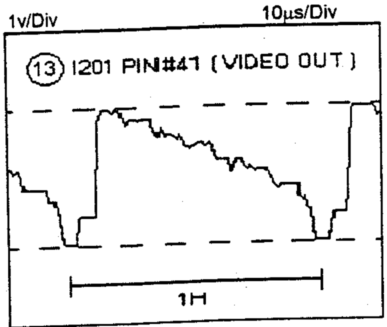
⑫ I201 PIN#32 (H-OUT)

v1(1)=2.4v v1(2)=0.0v Δv(1)=2.4v

WAVEFORMS AT EACH SECTION

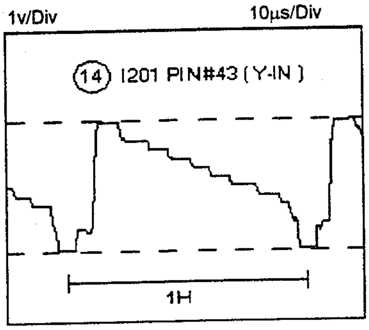
Numbers inside circle correspond to locations shown in the circuit diagram.

1v/Div 10µs/Div



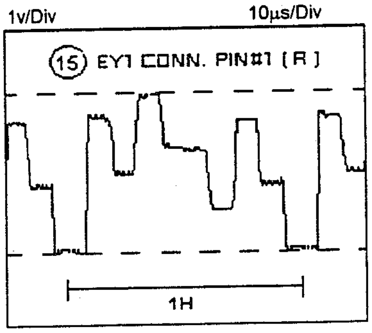
v1(1)=3.4v v1(2)=2.2 Δv(1)=1.2v

1v/Div 10µs/Div



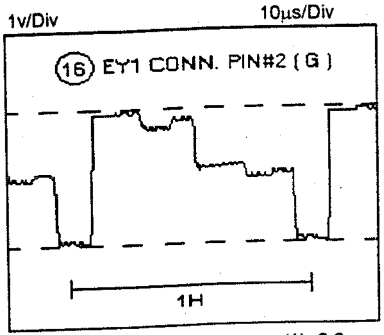
v1(1)=4.4v v1(2)=3.8v Δv(1)=0.6v

1v/Div 10µs/Div



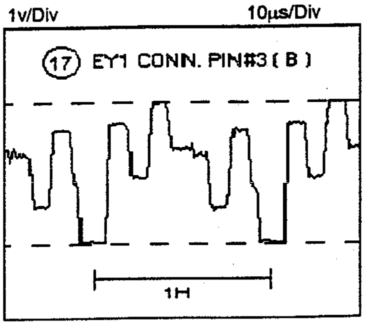
v1(1)=5.7v v1(2)=1.3 Δv(1)=4.4v

1v/Div 10µs/Div



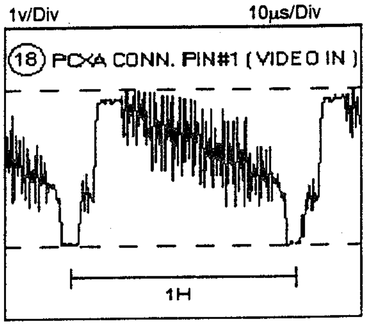
v1(1)=5.0v v1(2)=1.4v Δv(1)=3.6v

1v/Div 10µs/Div



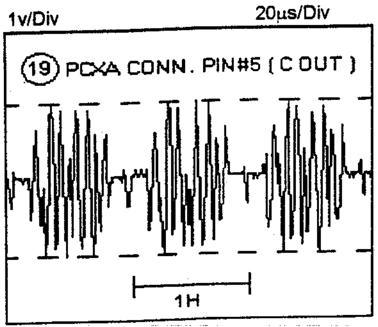
v1(1)=6.6v v1(2)= 0.8v Δv(1)=5.8v

1v/Div 10µs/Div



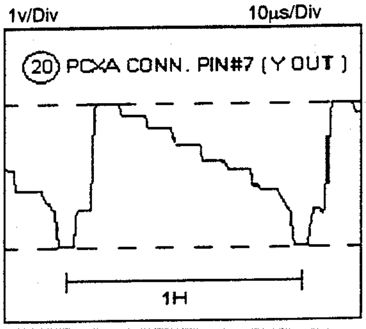
v1(1)=4.0v v1(2)=2.4v Δv(1)=1.6v

1v/Div 20µs/Div



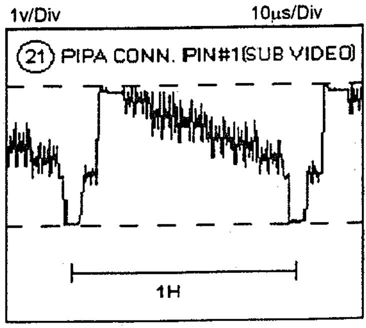
v1(1)=4.7v v1(2)=4.0v Δv(1)=0.7v

1v/Div 10µs/Div



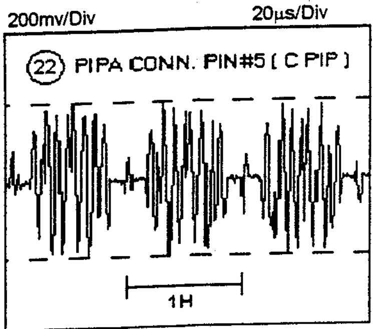
v1(1)=6.3v v1(2)=5.0v Δv(1)=1.3v

1v/Div 10µs/Div



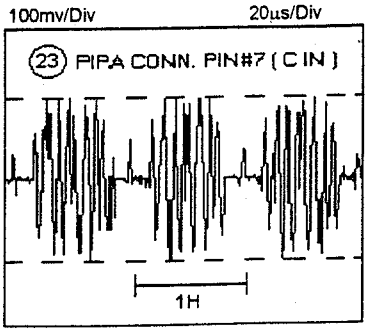
v1(1)=4.2v v1(2)=2.3 Δv(1)=1.9v

200mv/Div 20µs/Div



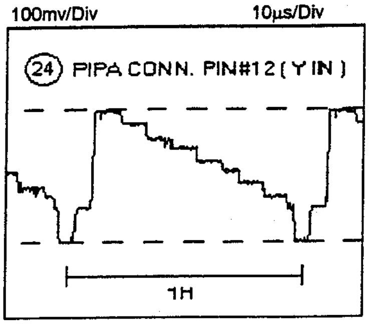
v1(1)=1.3v v1(2)=0.6v Δv(1)=0.7v

100mv/Div 20µs/Div



v1(1)=0.4v v1(2)=-.3v Δv(1)=0.7v

100mv/Div 10µs/Div

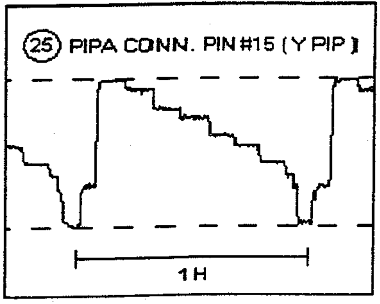


v1(1)=0.3v v1(2)=-.4v Δv(1)=0.7v

WAVEFORMS AT EACH SECTION

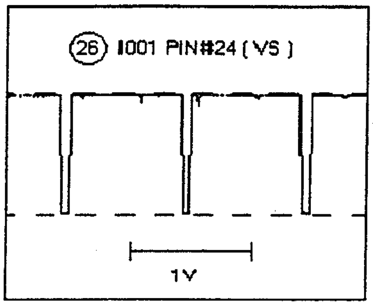
Numbers inside circle correspond to locations shown in the circuit diagram.

100mv/Div 10µs/Div



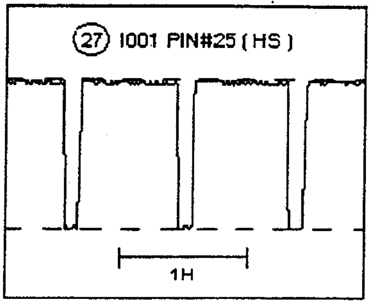
v1(1)=1.2v v1(2)=0.4v Δv(1)=0.8v

1v/Div 5ms/Div



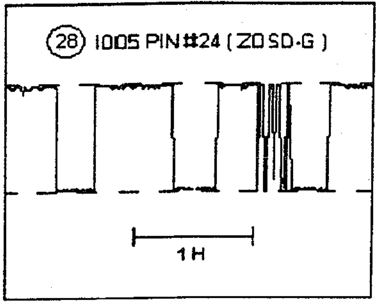
v1(1)=5.0v v1(2)= 0.0v Δv(1)=5.0v

1v/Div 20µs/Div



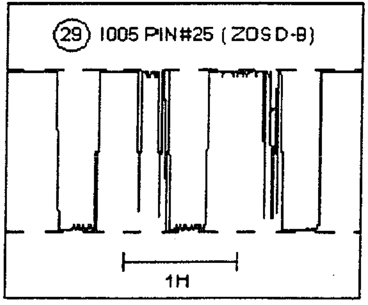
v1(1)=5.0v v1(2)= 0.0v Δv(1)=5.0v

500mv/Div 20µs/Div



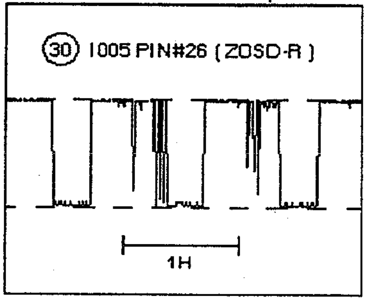
v1(1)=2.2v v1(2)=0.0v Δv(1)=2.2v

500mv/Div 20µs/Div



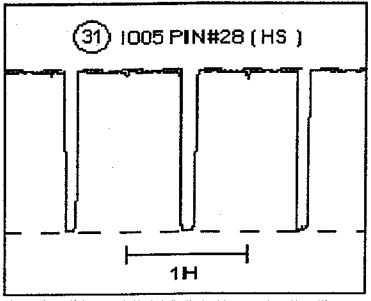
v1(1)=2.2v v1(2)=0.0v Δv(1)=2.2v

500mv/Div 20µs/Div



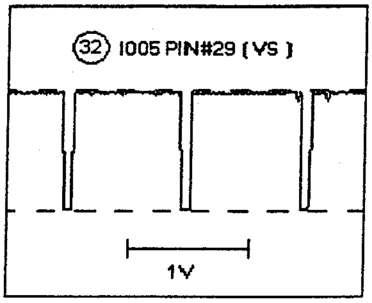
v1(1)=2.0v v1(2)= 0.0v Δv(1)=2.0v

1v/Div 20µs/Div



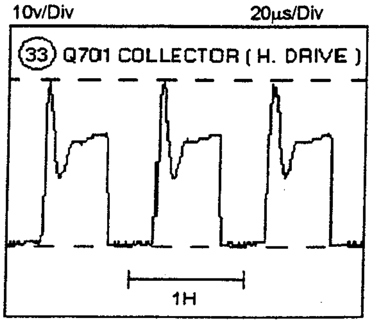
v1(1)=4.5v v1(2)= 0.0v Δv(1)=4.5v

1v/Div 5ms/Div



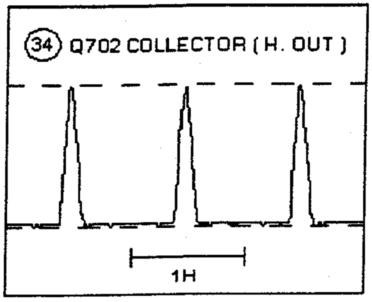
v1(1)=5.0v v1(2)= 0.0v Δv(1)=5.0v

10v/Div 20µs/Div



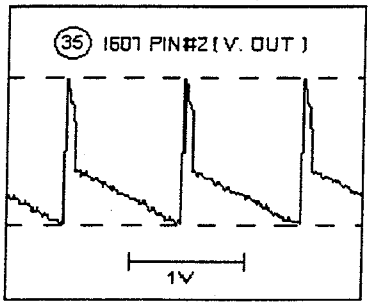
v1(1)=43.0v v1(2)=0.0v Δv(1)= 43.0v

200v/Div 20µs/Div



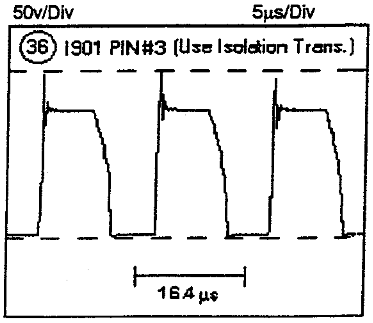
v1(1)=1060v v1(2)= 0.0v Δv(1)=1060v

10v/Div 5ms/Div



v1(1)=52v v1(2)=1.6v Δv(1)=50.4v

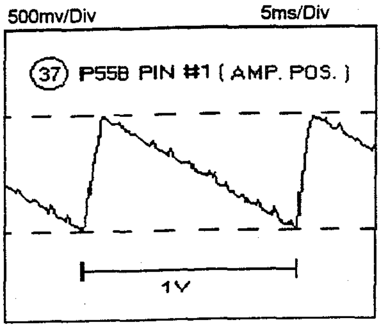
50v/Div 5µs/Div



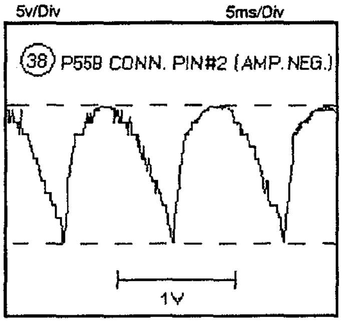
v1(1)=276v v1(2)= 0.0v Δv(1)=276v

WAVEFORMS AT EACH SECTION

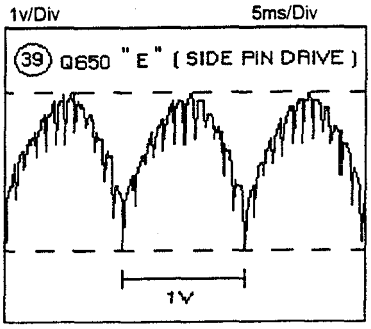
Numbers inside circle correspond to locations shown in the circuit diagram.



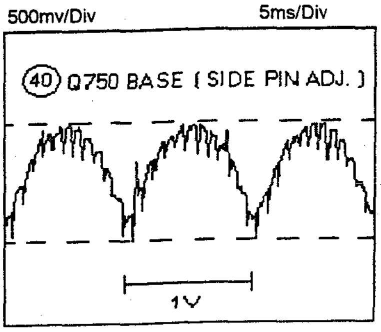
v1(1)=0.7v v1(2)=0.8v Δv(1)=1.5v



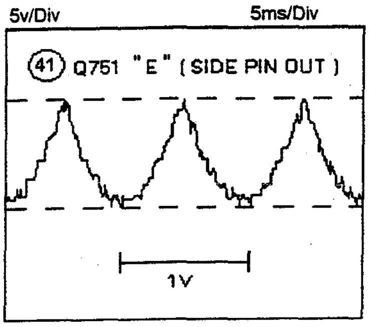
v1(1)=14.6v v1(2)=12.4 Δv(1)=2.2v



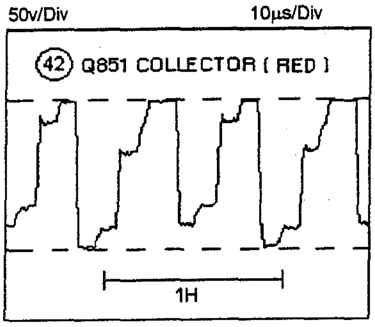
v1(1)=5.6v v1(2)=4.2v Δv(1)=1.4v



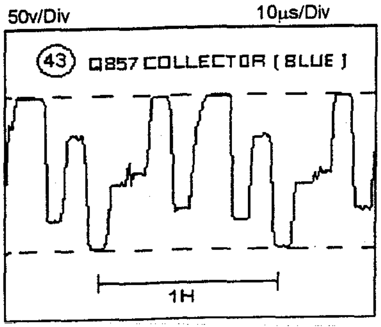
v1(1)=1.4v v1(2)=0.8v Δv(1)=0.6v



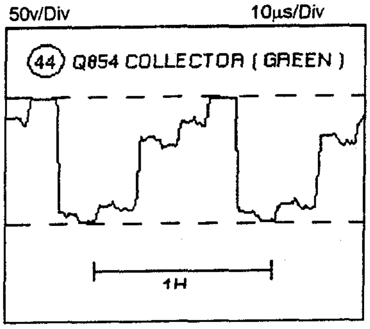
v1(1)=22.8v v1(2)=15.6v Δv(1)=7.2v



v1(1)=212v v1(2)=68v Δv(1)=144v



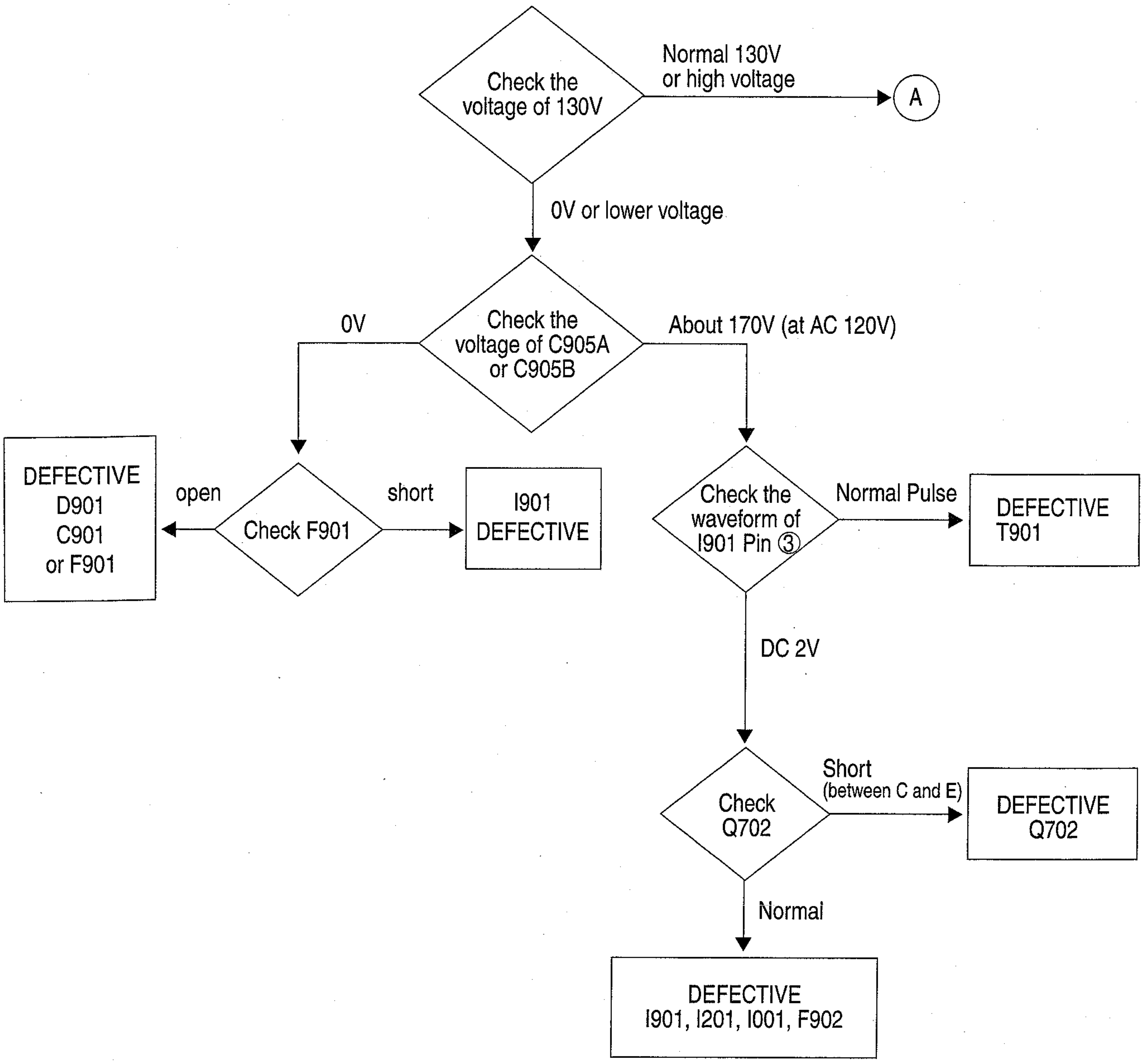
v1(1)=212v v1(2)=62v Δv(1)=150v



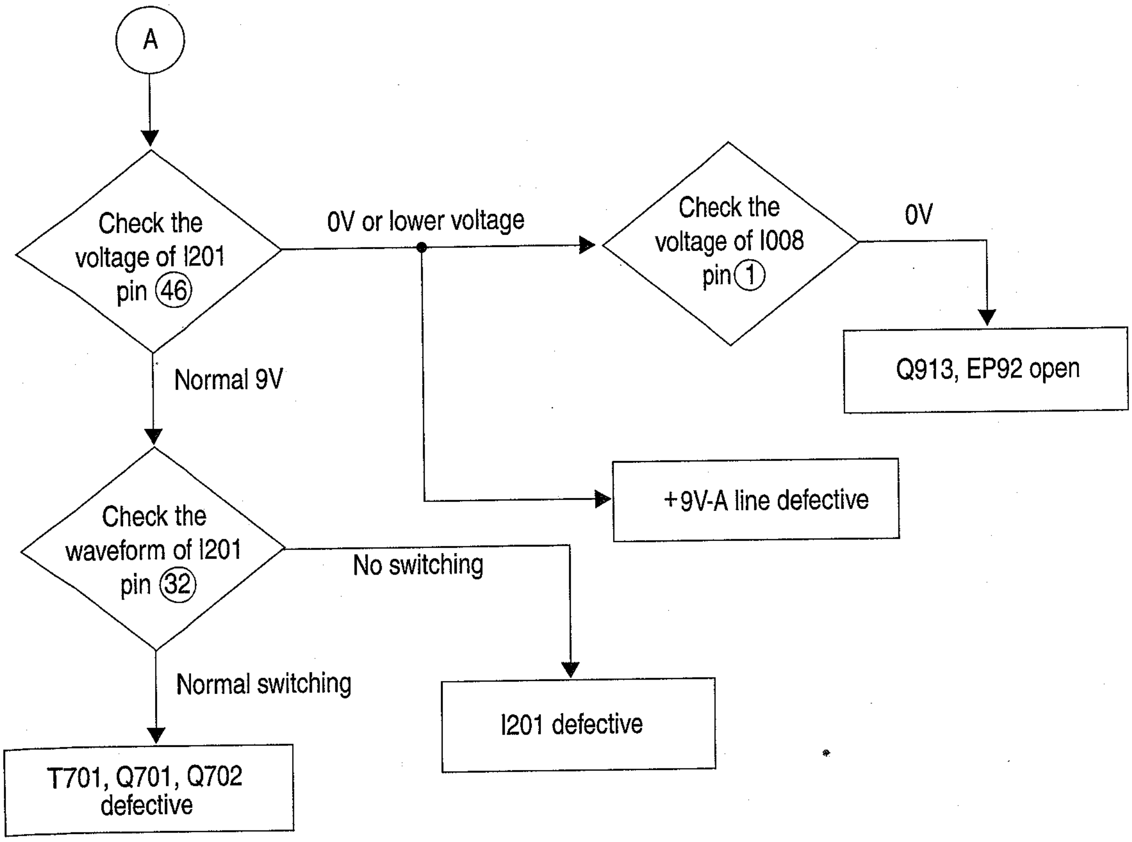
v1(1)=212v v1(2)=92v Δv(1)=120v

TROUBLESHOOTING

① NO RASTER AND SOUND

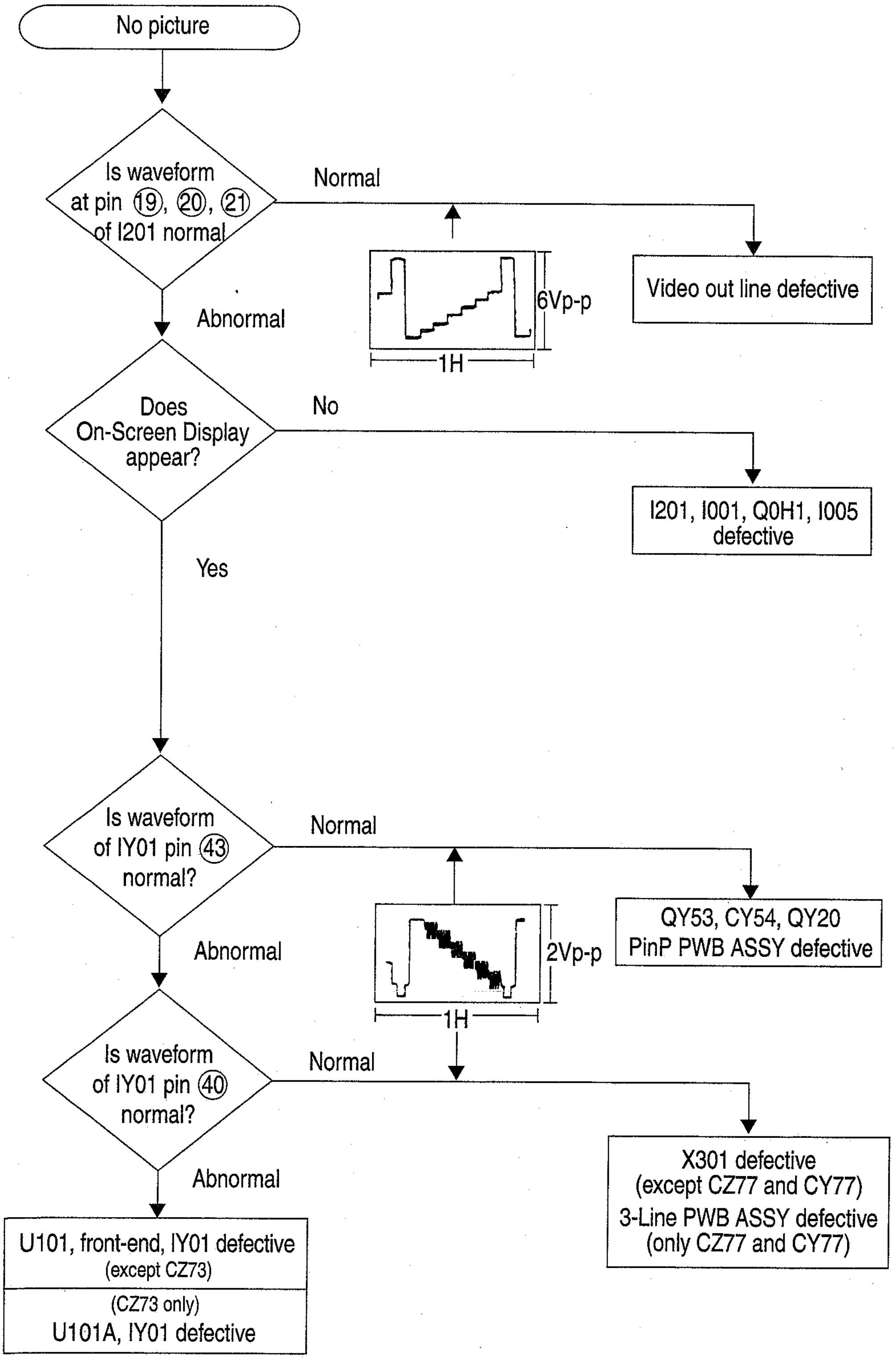

Check the voltage of 130V
Normal 130V or high voltage
A
0V or lower voltage
Check the voltage of C905A or C905B
0V
About 170V (at AC 120V)
Check F901
open
DEFECTIVE D901 C901 or F901
short
I901 DEFECTIVE
Check the waveform of I901 Pin ③
Normal Pulse
DEFECTIVE T901
DC 2V
Check Q702
Short (between C and E)
DEFECTIVE Q702
Normal
DEFECTIVE I901, I201, I001, F902

TROUBLESHOOTING


A
Check the voltage of I201 pin ㊻
0V or lower voltage
Check the voltage of I008 pin①
0V
Q913, EP92 open
Normal 9V
+9V-A line defective
Check the waveform of I201 pin ㉜
No switching
Normal switching
I201 defective
T701, Q701, Q702 defective

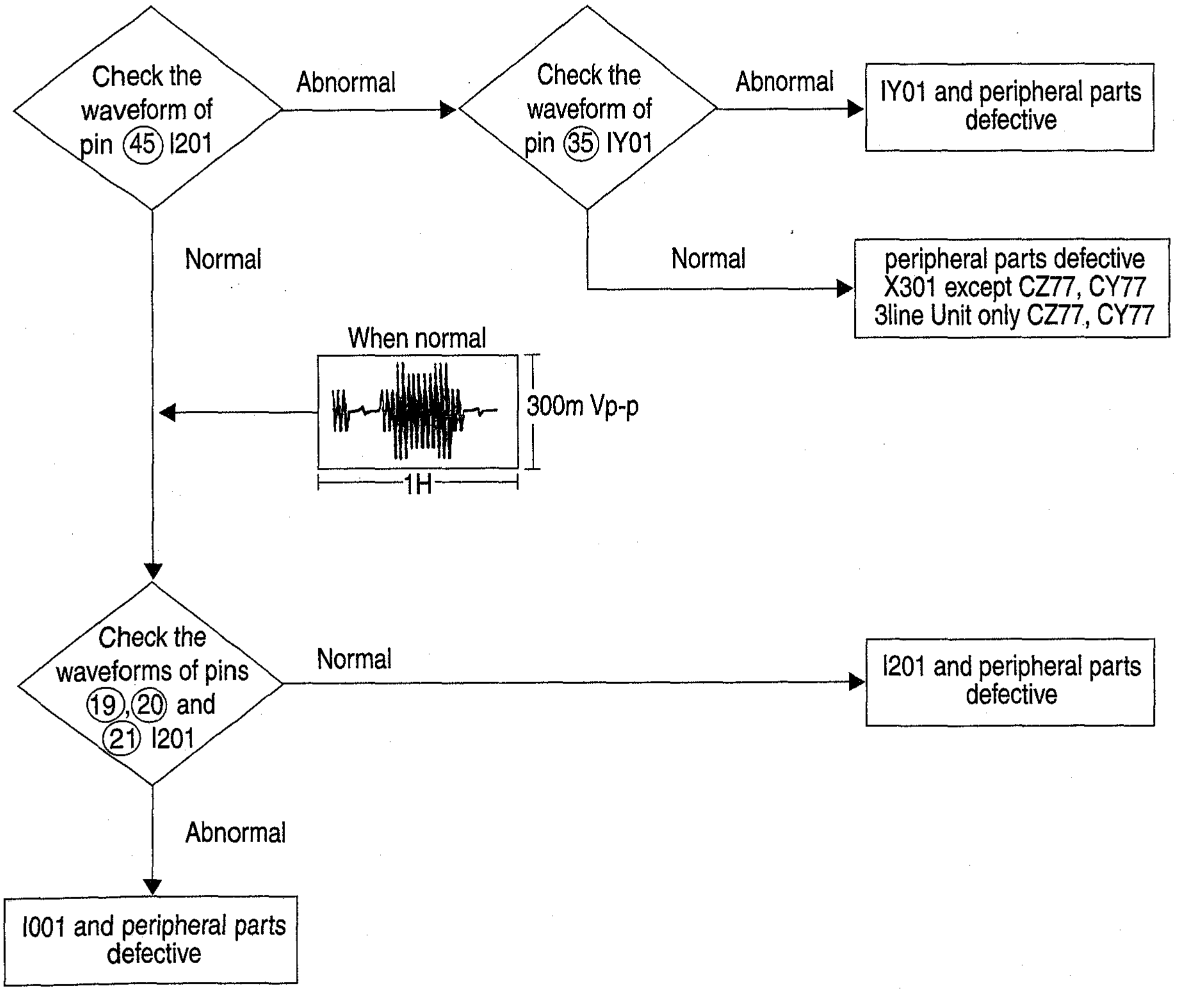
TROUBLESHOOTING

② NO PICTURE


No picture
Is waveform at pin ⑲, ⑳, ㉑ of I201 normal
Normal
Abnormal
6Vp-p
1H
Video out line defective
Does On-Screen Display appear?
No
Yes
I201, I001, Q0H1, I005 defective
Is waveform of IY01 pin ㊸ normal?
Normal
Abnormal
2Vp-p
1H
QY53, CY54, QY20 PinP PWB ASSY defective
Is waveform of IY01 pin ㊵ normal?
Normal
Abnormal
X301 defective (except CZ77 and CY77)
3-Line PWB ASSY defective (only CZ77 and CY77)
U101, front-end, IY01 defective (except CZ73)
(CZ73 only) U101A, IY01 defective

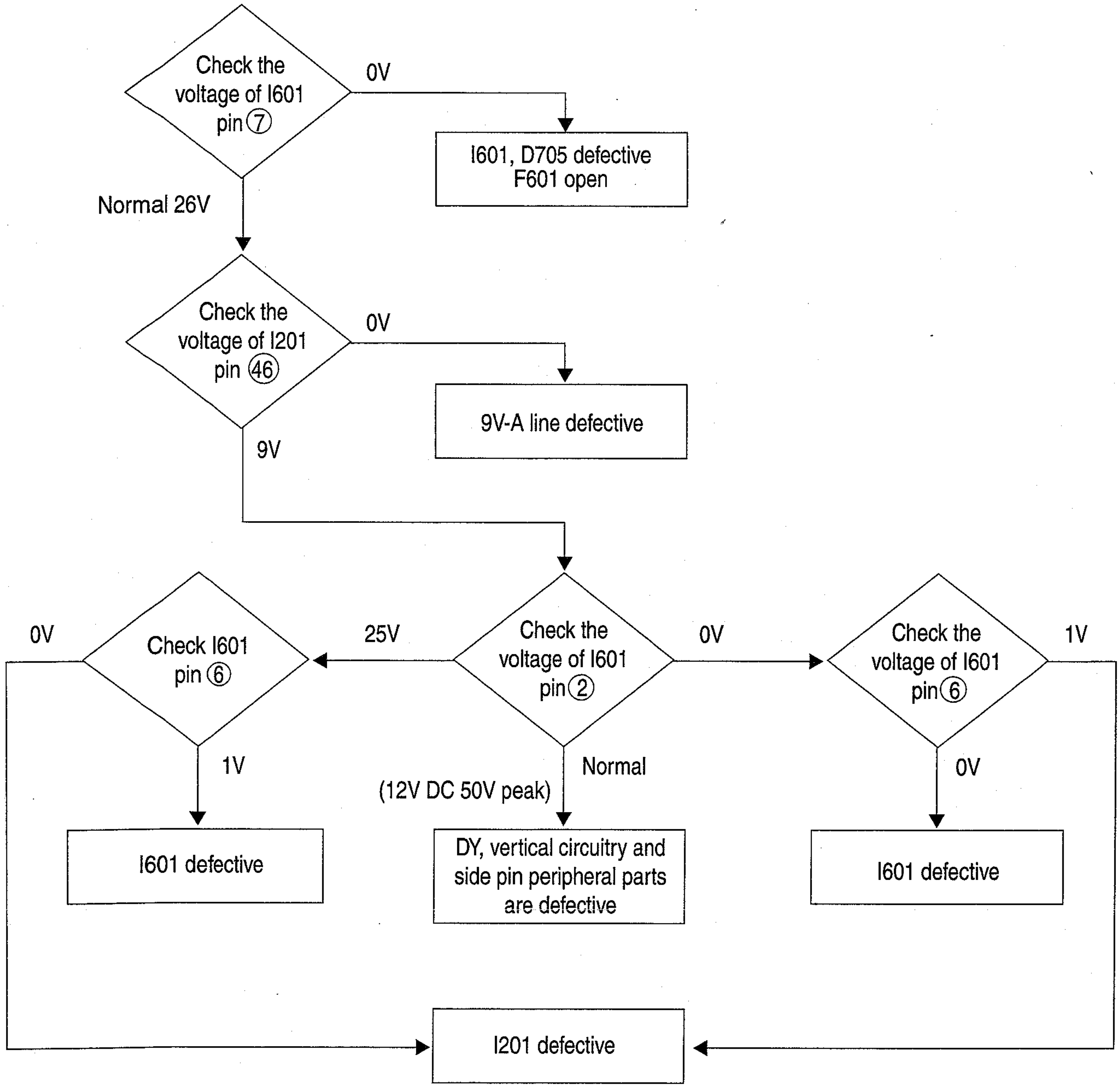
TROUBLESHOOTING

③ NO COLOR


Check the waveform of pin ㊺ I201
Abnormal
Check the waveform of pin ㉟ IY01
Abnormal
IY01 and peripheral parts defective
Normal
Normal
peripheral parts defective
X301 except CZ77, CY77
3line Unit only CZ77, CY77
When normal
300m Vp-p
1H
Check the waveforms of pins ⑲,⑳ and ㉑ I201
Normal
I201 and peripheral parts defective
Abnormal
I001 and peripheral parts defective

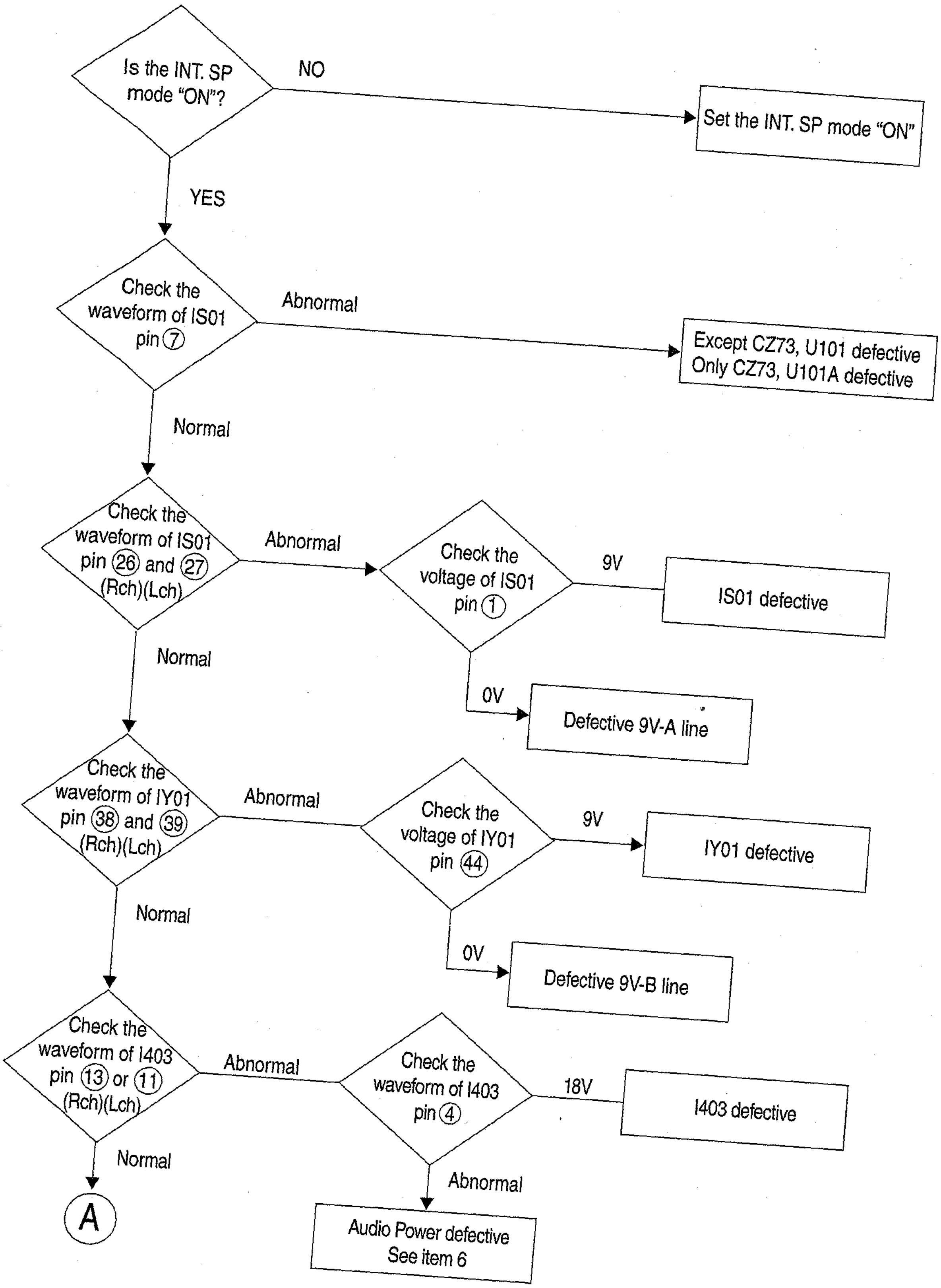
TROUBLESHOOTING

④ NO VERTICAL DEFECTION OR V. SIZE IS DISTORTED

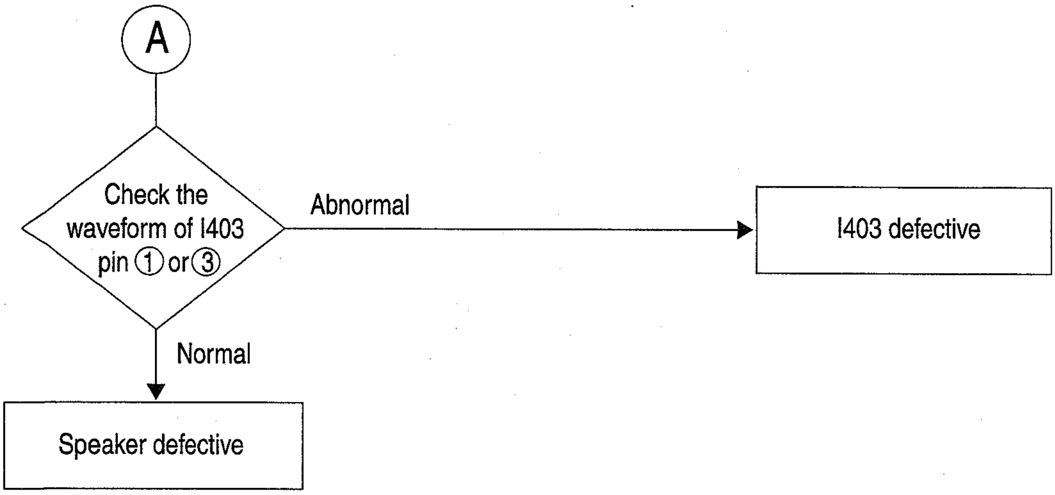

Check the voltage of I601 pin⑦
0V
I601, D705 defective F601 open
Normal 26V
Check the voltage of I201 pin ㊻
0V
9V-A line defective
9V
0V
Check I601 pin⑥
25V
Check the voltage of I601 pin②
0V
Check the voltage of I601 pin⑥
1V
1V
I601 defective
Normal
(12V DC 50V peak)
DY, vertical circuitry and side pin peripheral parts are defective
0V
I601 defective
I201 defective

TROUBLESHOOTING

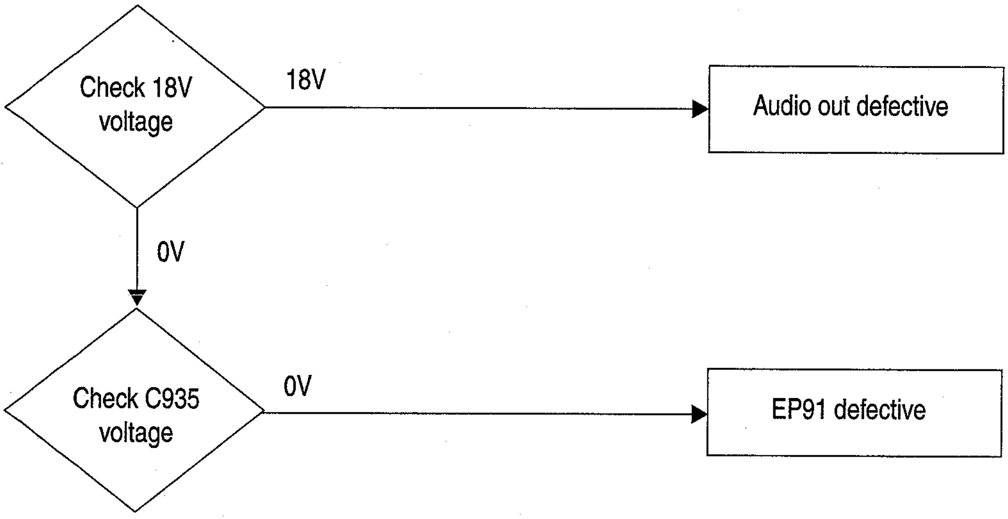
⑤ NO SOUND


Is the INT. SP mode "ON"?
NO
Set the INT. SP mode "ON"
YES
Check the waveform of IS01 pin ⑦
Abnormal
Except CZ73, U101 defective
Only CZ73, U101A defective
Normal
Check the waveform of IS01 pin ㉖ and ㉗ (Rch)(Lch)
Abnormal
Check the voltage of IS01 pin ①
9V
IS01 defective
0V
Defective 9V-A line
Normal
Check the waveform of IY01 pin ㊳ and ㊴ (Rch)(Lch)
Abnormal
Check the voltage of IY01 pin ㊹
9V
IY01 defective
0V
Defective 9V-B line
Normal
Check the waveform of I403 pin ⑬ or ⑪ (Rch)(Lch)
Abnormal
Check the waveform of I403 pin ④
18V
I403 defective
Abnormal
Audio Power defective
See item 6
Normal
A

TROUBLESHOOTING

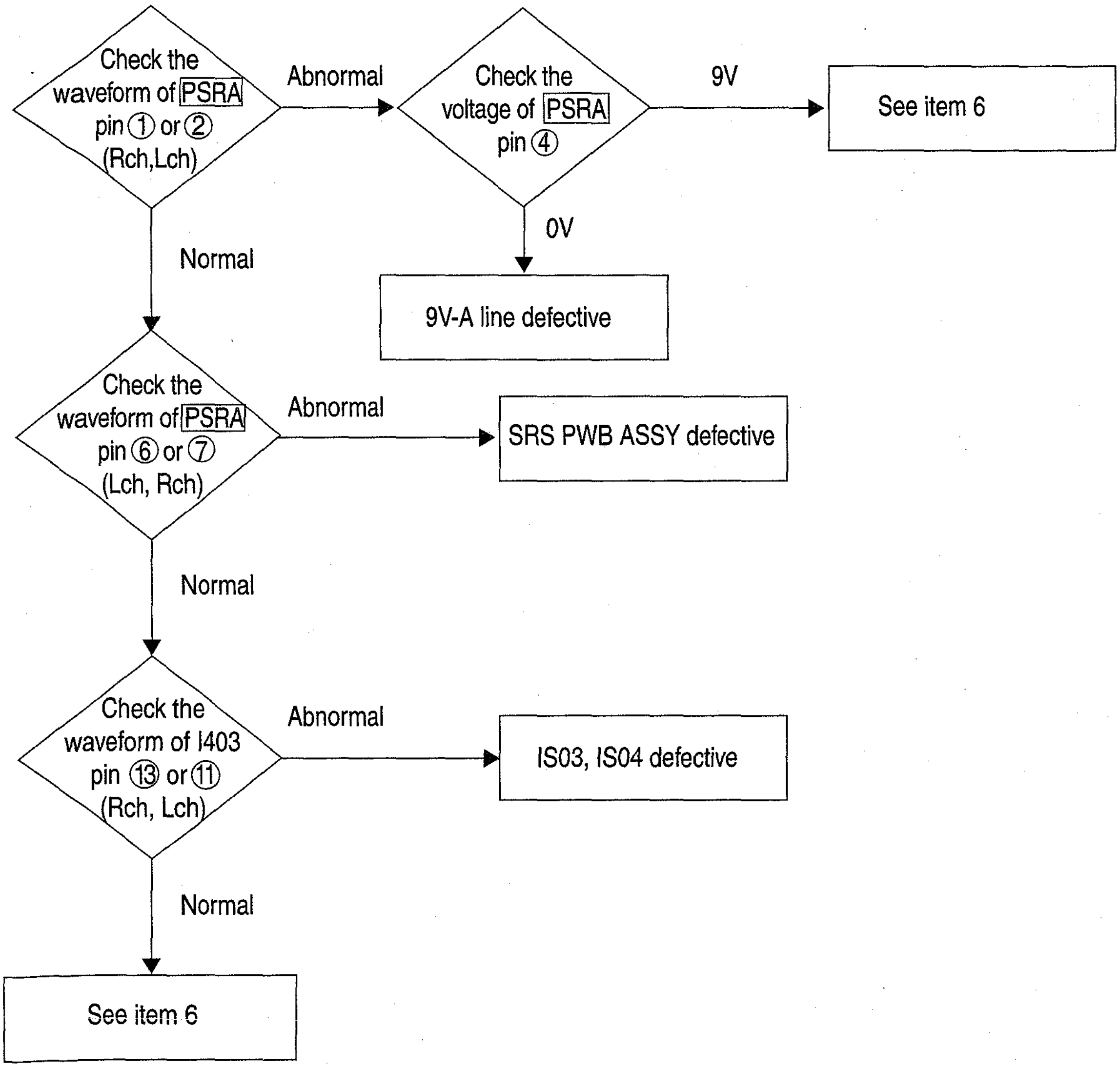

A
Check the waveform of I403 pin ① or ③
Abnormal
I403 defective
Normal
Speaker defective

⑥ NO SOUND (NO AUDIO POWER)


Check 18V voltage
18V
Audio out defective
0V
Check C935 voltage
0V
EP91 defective

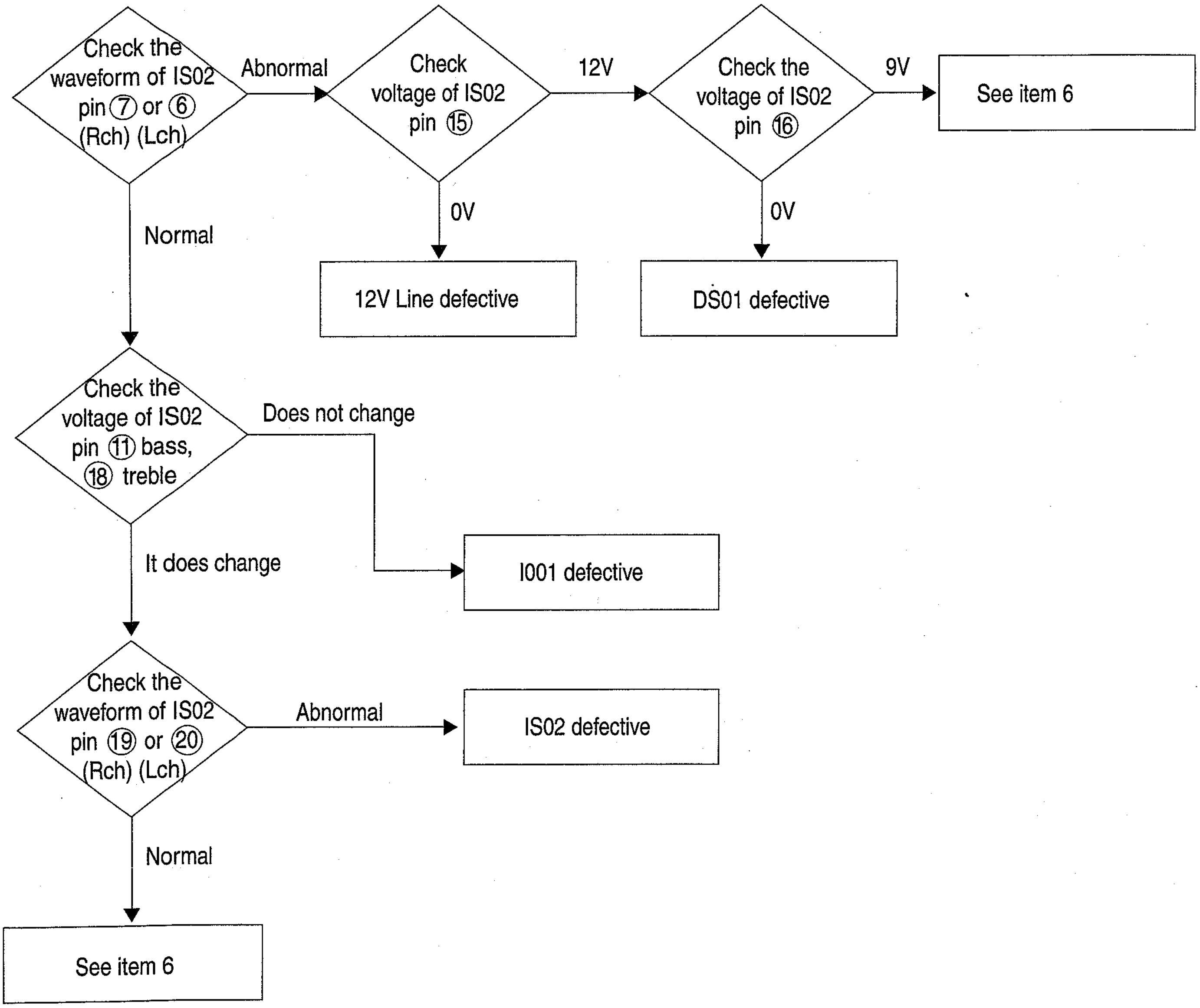
TROUBLESHOOTING

⑦ NO SOUND OR NOT VARIABLE (BASS, TREBLE)
CZ77, CY77 ONLY


Check the waveform of PSRA pin ① or ② (Rch,Lch)
Abnormal
Check the voltage of PSRA pin ④
9V
See item 6
0V
9V-A line defective
Normal
Check the waveform of PSRA pin ⑥ or ⑦ (Lch, Rch)
Abnormal
SRS PWB ASSY defective
Normal
Check the waveform of I403 pin ⑬ or ⑪ (Rch, Lch)
Abnormal
IS03, IS04 defective
Normal
See item 6

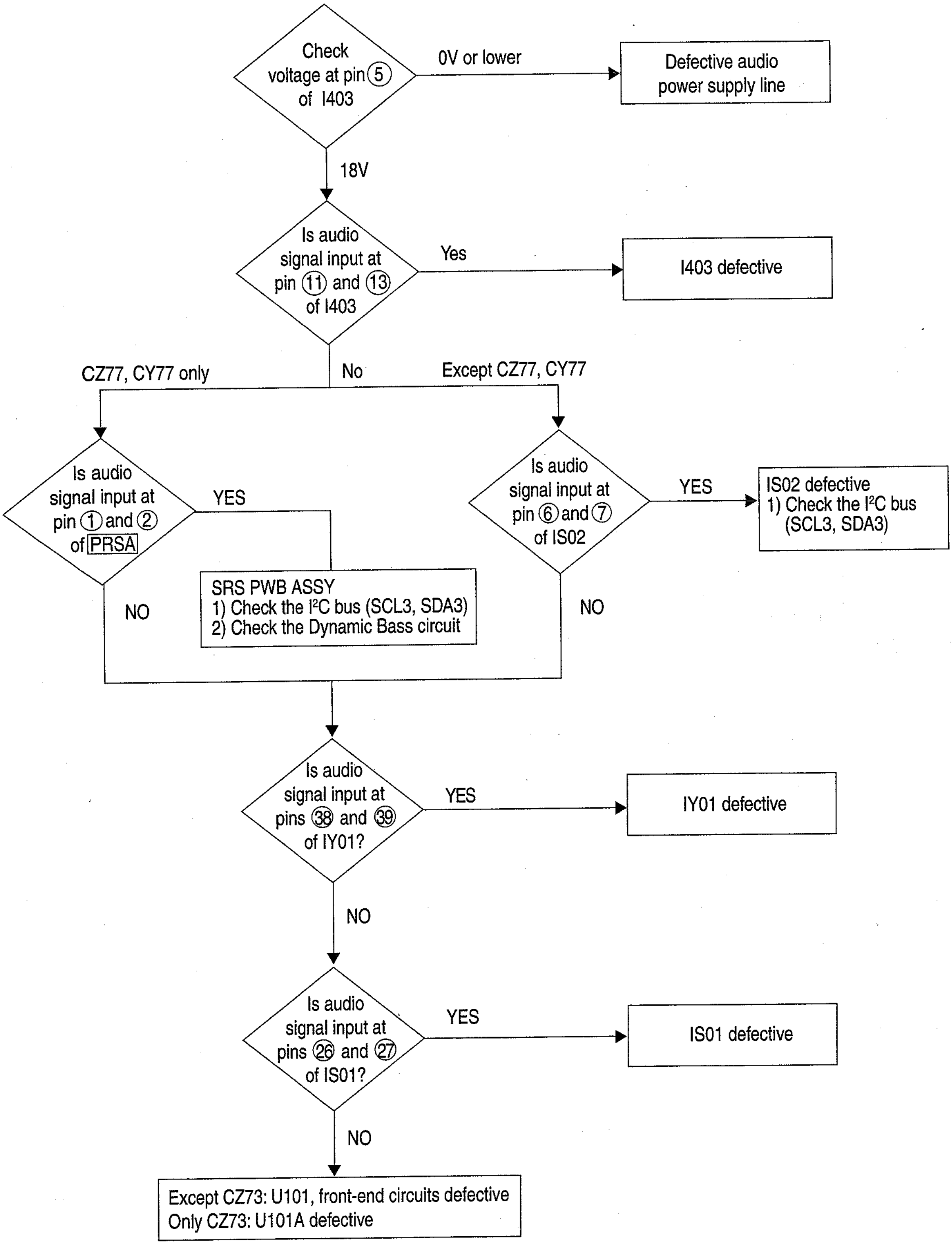
TROUBLESHOOTING

⑦A NO SOUND OR NOT VARIABLE (BASS, TREBLE) EXCEPT CZ77, CY77


Check the waveform of IS02 pin ⑦ or ⑥ (Rch) (Lch)
Abnormal
Check voltage of IS02 pin ⑮
12V
Check the voltage of IS02 pin ⑯
9V
See item 6
0V
12V Line defective
0V
DS01 defective
Normal
Check the voltage of IS02 pin ⑪ bass, ⑱ treble
Does not change
I001 defective
It does change
Check the waveform of IS02 pin ⑲ or ⑳ (Rch) (Lch)
Abnormal
IS02 defective
Normal
See item 6

TROUBLESHOOTING

⑧ NO SOUND (WHEN SURROUND OFF)


Check voltage at pin ⑤ of I403
0V or lower
Defective audio power supply line
18V
Is audio signal input at pin ⑪ and ⑬ of I403
Yes
I403 defective
CZ77, CY77 only
No
Except CZ77, CY77
Is audio signal input at pin ① and ② of PRSA
YES
SRS PWB ASSY
1) Check the I²C bus (SCL3, SDA3)
2) Check the Dynamic Bass circuit
NO
Is audio signal input at pin ⑥ and ⑦ of IS02
YES
IS02 defective
1) Check the I²C bus (SCL3, SDA3)
NO
Is audio signal input at pins ㊳ and ㊴ of IY01?
YES
IY01 defective
NO
Is audio signal input at pins ㉖ and ㉗ of IS01?
YES
IS01 defective
NO
Except CZ73: U101, front-end circuits defective
Only CZ73: U101A defective

NOTES:

REPLACEMENT PARTS LIST

ODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver ugh improper servicing.

ABBREVIATIONS

Capacitors:

CD: Ceramic Disc
PF: Polyester Film
EL: Electrolitic
PP: Polypropylene
PR: Paper
TA: Tantalum
TM: Trimmer
MC: Mylar

Resistor:

CF: Carbon Film
CC: Carbon Composition
MF: Metal Oxide Film
VR: Variable Resistor
WW: Wire Wound
FR: Fuse Resistor
MG: Metal Glaze

Semiconductors:

TR: Transistor
DI: Diode
ZD: Zener Diode
VA: Varistor
TH: Thermistor
IC: Integrated Circuit

SYMBOL NO.	PART NO.	PART DESCRIPTION
		MAIN P.W.B CAPACITORS
CA01	0800003R	EL. 1.0UF-M 50V
CA02	0800003R	EL. 1.0UF-M 50V
CA03	0800003R	EL. 1.0UF-M 50V
CA04	0800003R	EL. 1.0UF-M 50V
CA05	0800003R	EL. 1.0UF-M 50V
CA06	0800003R	EL. 1.0UF-M 50V
CA07	0800003R	EL. 1.0UF-M 50V
CA08	0800003R	EL. 1.0UF-M 50V
CA34	0800015R	EL. 10UF-M 16V (NOT CZ73)
CA37	0800015R	EL. 10UF-M 16V
CA40	0800015R	EL. 10UF-M 16V
CA41	0800015R	EL. 10UF-M 16V (NOT CZ73)
CC01	0880009R	PF. 0.01UF-K 50V
CC02	0244141R	CD. 0.01UF-KB B 50V
CC03	0890077R	CD. 180PF-K 50V
CC04	0880009R	PF. 0.01UF-K 50V
CC05	0890071R	CD. 56PF-J 50V
CC06	0880009R	PF. 0.01UF-K 50V (NOT CZ77/CY77)
CC10	0880016R	PF. 0.1UF 50V
CK268	0284638R	EL. 10UF-SME(BP) 16V
COM5	0800047R	EL. 100UF-M 6.3V
CS01	0800049R	EL. 100UF-M 16V
CS02	0800023R	EL. 22UF-M 16V
CS03	0800003R	EL. 1.0UF-M 50V
CS04	0800009R	EL. 4.7UF-M 25V
CS05	0800003R	EL. 1.0UF-M 50V
CS06	0800015R	EL. 10UF-M 16V
CS07	0880016R	PF. 0.1UF 50V
CS08	0880014R	MC. 0.047U
CS09	0800001R	EL. 0.47UF-M 50V (SME)
CS10	0880016R	PF. 0.1UF 50V
CS11	0800003R	EL. 1.0UF-M 50V
CS12	0800003R	EL. 1.0UF-M 50V
CS13	0800003R	EL. 1.0UF-M 50V
CS14	0292712F	TA. 3.3UF-K 16V
CS15	0292714F	TA. 10UF-K 16V
CS16	0800003R	EL. 1.0UF-M 50V
CS17	0800003R	EL. 1.0UF-M 50V
CS21	0880052R	PF. 0.039UF-KEB 50V (NOT CZ77/CY77)
CS22	0880009R	PF. 0.01UF-K 50V (NOT CZ77/CY77)
CS23	0880052R	PF. 0.039UF-KEB 50V (NOT CZ77/CY77)
CS24	0880052R	PF. 0.039UF-KEB 50V (NOT CZ77/CY77)
CS25	0800003R	EL. 1.0UF-M 50V (NOT CZ77/CY77)
CS26	0800003R	EL. 1.0UF-M 50V (NOT CZ77/CY77)
CS27	0800015R	EL. 10UF-M 16V (NOT CZ77/CY77)
CS28	0800015R	EL. 10UF-M 16V (NOT CZ77/CY77)
CS29	0800015R	EL. 10UF-M 16V (NOT CZ77/CY77)
CS30	0800058R	EL. 220UF-M 16V (NOT CZ77/CY77)
CS31	0800366N	EL. 2200UF-10V SMG (NOT CZ77/CY77)
CS32	0800015R	EL. 10UF-M 16V (NOT CZ77/CY77)
CS33	0880041R	PF. 0.0056UF-KEB 50V (NOT CZ77/CY77)
CS34	0800015R	EL. 10UF-M 16V (NOT CZ77/CY77)
CS35	0800007R	EL. 3.3UF-M 50V (NOT CZ77/CY77)
CS40	0890074R	CD. 100PF-J 50V (NOT CZ77/CY77)
CS50	0800015R	EL. 10UF-M 16V
CS51	0890074R	CD. 100PF-J 50V (NOT CZ77/CY77)
CS52	0800015R	EL. 10UF-M 16V (CZ77/CY77)
CS53	0800015R	EL. 10UF-M 16V (CZ77/CY77)
CS54	0284623R	EL. 1UF-SME(BP) 50V (CZ77/CY77)
CS55	0880016R	PF. 0.1UF 50V (CZ77/CY77)
CS56	0284623R	EL. 1UF-SME(BP) 50V (CZ77/CY77)
CS57	0800009R	EL. 4.7UF-M 25V (CZ77/CY77)
CS58	0800009R	EL. 4.7UF-M 25V (CZ77/CY77)
CS59	0880016R	PF. 0.1UF 50V (CZ77/CY77)
CS60	0800015R	EL. 10UF-M 16V (CZ77/CY77)
CS61	0800015R	EL. 10UF-M 16V (CZ77/CY77)
CS62	0800049R	EL. 100UF-M 16V (CZ77/CY77)
CS63	0800049R	EL. 100UF-M 16V (CZ77/CY77)
CS64	0800041R	EL. 47UF-M 16V (CZ77/CY77)

REPLACEMENT PARTS LIST

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
CS66	0800015R	EL. 10UF-M 16V
CT01	0283127	TM (RED)
CY01	0284647R	EL. 22UF-SME(BP) 16V
CY04	0800023R	EL. 22UF-M 16V
CY05	0800023R	EL. 22UF-M 16V
CY06	0800023R	EL. 22UF-M 16V
CY07	0800023R	EL. 22UF-M 16V
CY08	0800049R	EL. 100UF-M 16V
CY09	0880016R	PF. 0.1UF 50V
CY14	0800074N	EL. 470UF-M 16V (NOT CZ73)
CY17	0800041R	EL. 47UF-M 16V (NOT CZ73)
CY21	0284638R	EL. 10UF-SME(BP) 16V (NOT CZ77/CY77)
CY22	0880016R	PF. 0.1UF 50V (NOT CZ73)
CY30	0800041R	EL. 47UF-M 16V (CZ77/CY77)
CY31	0880009R	PF. 0.01UF-K 50V (CZ77/CY77)
CY32	0880009R	PF. 0.01UF-K 50V
CY33	0800049R	EL . 100UF-M 16V
CY34	0800049R	EL. 100UF-M 16V
CY35	0880009R	PF. 0.01UF-K 50V
CY36	0880009R	PF. 0.01UF-K 50V
CY37	0800041R	EL. 47UF-M 16V
CY51	0880016R	PF. 0.1UF 50V
CY52	0800015R	EL. 10UF-M 16V
CY53	0890065R	CD. 22PF-J 50V (CZ73)
CY53	0890068R	CD. 39PF-J 50V (NOT CZ73)
CY55	0890074R	CD. 100PF-J 50V (CY77)
CY55	0890077R	CD. 180PF-K 50V (CZ77/CZ73)
CY55	0890078R	CD. 220PF-K 50V (CY75)
CY55	0890079R	CD. 270PF-K 50V (CZ75)
CY75	0800023R	EL. 22UF-M 16V (NOT CZ73)
CY76	0880009R	PF. 0.01UF-K 50V
CY80	0880009R	PF. 0.01UF-K 50V
C0AH	0890074R	CD. 100PF-J 50V
C0A1	0248700R	CD. 680PF-J SL 50V
C0A2	0800003R	EL. 1.0UF-M 50V
C0A3	0880057R	PF. 0.1UF-KEB 50V
C0A4	0890123R	CD. 47PF-J CH 50V
C0A5	0890065R	CD. 22F-J 50V
C0A6	0800003R	EL. 1.0UF-M 50V
C0A7	0890079R	CD. 270PF-K 50V
C0A8	0800041R	EL. 47UF-M 16V
C0C1	0800072R	EL. 470UF-M 6.3V
C0C2	0244141R	CD. 0.01UF-KB B 50V
C0C3	0800047R	EL. 100UF-M 6.3V
C0C4	0244141R	CD. 0.01UF-KB B 50V
C0M1	0800047R	EL. 100UF-M 6.3V
C00A	0800009R	EL. 4.7UF-M 25V
C00G	0800015R	EL. 10UF-M 16V
C00H	0800015R	EL. 10UF-M 16V
C00K	0800015R	EL. 10UF-M 16V (NOT CY77/CY75)
C00R	0800049R	EL. 100UF-M 16V
C00T	0800039R	EL. 47UF-M 10V (NOT CZ77/CY77)
C00T	0800047R	EL. 100UF-M 6.3V (CZ77/CY77)
C00X	0800009R	EL. 4.7UF-M 25V
C001	0800047R	EL. 100UF-M 6.3V
C002	0800005R	EL. 2.2UF-M 50V
C003	0880016R	PF. 0.1UF 50V
C004	0800039R	EL. 47UF-M 10V (NOT CZ77/CY77)
C004	0800047R	EL. 100UF-M 6.3V (CZ77/CY77)
C005	0880012R	MC. 0.022UF 0204249C
C007	0890089R	CD. 1500PF-K 50V
C008	0890089R	CD. 1500PF-K 50V
C009	0880016R	PF. 0.1UF 50V
C010	0800003R	EL. 1.0UF-M 50V
C011	0890121R	CD. 33PF-J CH 50V
C012	0890121R	CD. 33PF-J CH 50V
C013	0890118R	CD. 22PF-J CH 50V
C014	0890114R	CD. 10PF-D CH 50 V
C015	0890087R	CD. 1000PF-K 50V
C022	0880012R	MC. 0.022U 020
C023	0880009R	PF. 0.01UF-K 50V
C027	0284638R	EL. 10UF-SME(BP) 16V
C028	0800015R	EL. 10UF-M 16V
C030	0800009R	EL. 4.7UF-M 25V (NOT CZ73)
C032	0890087R	CD. 1000PF-K 50V (NOT CZ73)
C033	0800009R	EL. 4.7UF-M 25V (CZ77/CY77)
C034	0880015R	PF. 0.068UF-K 50V
C035	0284638R	EL. 10UF-SME(BP) 16V
C040	0880009R	PF. 0.01UF-K 50V
C05A	0284623R	EL. 1UF-SME(BP) 50V
C05C	0800015R	EL. 10UF-M 16V
C050	0800009R	EL. 4.7UF-M 25V
C051	0800049R	EL. 100UF-M 16V (CZ73)
C052	0890087R	CD. 1000PF-K 50V
C053	0800047R	EL. 100UF-M 6.3V (CY77/CY75)
C054	0800047R	EL. 100UF-M 6.3V
C1O8	0800049R	EL. 100UF-M 16V
C101	0800015R	EL. 10UF-M 16V (NOT CZ73)
C101A	0800015R	EL. 10UF-M 16V (CZ73)
C102	0244141R	CD. 0.01UF-KB B 50V (NOT CZ73)
C102A	0244141R	CD. 0.01UF-KB B 50V (CZ73)
C104	0800047R	EL. 100UF-M 6.3V
C105	0244105R	CD. 2200PF-K 50V TAPE (NOT CZ73)
C105A	0244105R	CD. 2200PF-K 50V TAPE (CZ73)
C106	0244141R	CD. 0.01UF-KB B 50V (NOT CZ73)
C106A	0244141R	CD. 0.01UF-KB B 50V (CZ73)

REPLACEMENT PARTS LIST

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YMBOL NO.	PART NO.	PART DESCRIPTION
107	0800082F	EL. 1000UF-M 16V
110	0244141R	CD. 0.01UF-KB B 50V (NOT CZ73)
110A	0244141R	CD. 0.01UF-KB B 50V (CZ73)
111	0244141R	CD. 0.01UF-KB B 50V (NOT CZ73)
112	0800082F	EL. 1000UF-M 16V
113	0800047R	EL. 100UF-M 6.3V (NOT CZ73)
114	0244105R	CD. 2200PF-K 50V TAPE (NOT CZ73)
115	0244141R	CD. 0.01UF-KB B 50V (NOT CZ73)
116	0800015R	EL. 10UF-M 16V (NOT CZ73)
117	0800049R	EL. 100UF-M 16V (NOT CZ73)
118	0880009R	PF. 0.01UF-K 50V (NOT CZ73)
119	0800047R	EL. 100UF-M 6.3V (NOT CZ73)
201	0244105R	CD. 2200PF-K 50V TAPE
202	0800074N	EL. 470UF-M 16V
203	0244105R	CD. 2200PF-K 50V TAPE (NOT CZ73)
204	0800001R	EL. 0.47UF-M 50V (SME) (NOT CZ73)
205	0890089R	CD. 1500PF-K 50V (NOT CZ73)
206	0890089R	CD. 1500PF-K 50V (NOT CZ73)
207	0800001R	EL. 0.47UF-M 50V (SME) (NOT CZ73)
208	0244105R	CD. 2200PF-K 50V TAPE (NOT CZ73)
209	0800074N	EL. 470UF-M 16V (NOT CZ73)
210	0880014R	MC. 0.047U (NOT CZ73)
211	0890089R	CD. 1500PF-K 50V (NOT CZ73)
212	0800041R	EL. 47UF-M 16V (NOT CZ73)
299	0890085R	CD. 680UF-K 50V (NOT CZ73)
3F0	0800015R	EL. 10UF-M 16V
3F1	0800049R	EL. 100UF-M 16V
3F2	0800015R	EL. 10UF-M 16V
301	0880009R	PF. 0.01UF-K 50V
302	0890083R	CD. 470PF-K 50V
C303	0880016R	PF. 0.1UF 50V
C304	0890076R	CD. 150PF-K 50V
C305	0800015R	EL. 10UF-M 16V
C306	0890083R	CD. 470PF-K 50V
C309	0880009R	PF. 0.01UF-K 50V
C310	0800049R	EL. 100UF-M 16V
C312	0284634R	EL. 4.7UF-M 50V
C4F0	0800009R	EL. 4.7UF-M 25V
C4F1	0800009R	EL. 4.7UF-M 25V
C401	0800049R	EL. 100UF-M 16V
C402	0800015R	EL. 10UF-M 16V
C403	0800015R	EL. 10UF-M 16V
C404	0800049R	EL. 100UF-M 16V (CZ77/CY77)
C410	0800015R	EL. 10UF-M 16V
C411	0800015R	EL. 10UF-M 16V
C430	0880203R	PF. 0.47UF-J 50V
C431	0880203R	PF. 0.47UF-J 50V
C432	0800016R	EL. 10UF-M 25V
C434	0890087R	CD. 1000PF-K 50V
C435	0890087R	CD. 1000PF-K 50V
C437	0800049R	EL. 100UF-M 16V
C438	0800083N	EL. 1000UF-M 25V
C441	0800083N	EL. 1000UF-M 25V (NOT CZ77/CY77)
C441	0800368N	EL. 2200UF-M 25V (CZ77/CY77)
C442	0800083N	EL. 1000UF-M 25V (NOT CZ77/CY77)
C442	0800368N	EL. 2200UF-M 25V (CZ77/CY77)
C443	0800041R	EL. 47UF-M 16V
C444	0800042R	EL. 47UF-M 25V
C445	0800042R	EL. 47UF-M 25V
C450	0800015R	EL. 10UF-M 16V
C485	0880017R	PF. 0.15UF-M 50V
C486	0880017R	PF. 0.15UF-M 50V
C501	0244105R	CD. 2200PF-K 50V TAPE
C502	0800082F	EL. 1000UF-M 16V
C503	0800015R	EL. 10UF-M 16V
C504	0800003R	EL. 1.0UF-M 50V
C505	0800003R	EL. 1.0UF-M 50V
C506	0800009R	EL. 4.7UF-M 25V
C508	0800009R	EL. 4.7UF-M 25V
C509	0800005R	EL. 2.2UF-M 50V
C510	0890061R	CD. 10PF- 50V
C511	0880012R	MC. 0.022U 020
C512	0800001R	EL. 0.47UF-M 50V (SME)
C513	0800049R	EL. 100UF-M 16V
C514	0244105R	CD. 2200PF-K 50V TAPE
C515	0800003R	EL. 1.0UF-M 50V
C550	0800049R	EL. 100UF-M 16V
C551	0880016R	PF. 0.1UF 50V
C552	0880016R	PF. 0.1UF 50V
C553	0880016R	PF. 0.1UF 50V
C554	0890074R	CD. 100PF-J 50V
C555	0890074R	CD. 100PF-J 50V
C60A	0880044R	PF. 0.01UF-KEB 50V
C60C	0292718R	TA. 2.2UF 20V
C60E	0800005R	EL. 2.2UF-M 50V
C603	0800049R	EL. 100UF-M 16V
C604	0890071R	CD. 56PF-J 50V
C606	0800052R	EL. 100UF-M 35V (NOT CY77/CY75)
C606	0800076F	EL. 470UF-M 35V (CY77/CY75)
C609	0800087F	EL. 2200UF-M 16V
C610	0880012R	MC. 0.022U 020
C611	0279693R	PF. 0.1UF
C612	0880062R	PF. 0.22UF-KEB 50V
C613	0292712F	TA. 3.3UF-K 16V (CY77/CY75)
C613	0292718F	TA. 2.2UF-K 20V (CZ77/CZ75)
C613	0800005R	EL. 2.2UF-M 50V (CZ73)

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION
C7H9	0890084R	CD. 560PF-K 50V
C71A	0244215	CD. 2200PF-DC 2KV(CY77/CY75)
C71C	0244105R	CD. 2200PF-K 50V TAPE
C71F	0243506R	CD. 270PF-K 500V
C71H	0244715F	CD. 180FP 2KV (NOT CY77/CY75)
C714	0880009R	PF. 0.01UF-K 50V
C715	0247842R	CD. 33PF-SL 500V
C716	0880019R	PF. 0.33UF-KB 50V
⚠ C718	0244215	CD. 2200PF-DC 2KV
C719	0244214	CD. 1800PF-K 2KV (CY77/CY75)
C719	0244215	CD. 2200PF-DC 2KV (NOT CY77/CY75)
C72A	0244501R	CD. 1000PF-K 500V
C72C	0800073R	EL. 470UF-M 10V
C720	0244501R	CD. 1000PF-K 500V
C721	0262429F	PP. 12000PF-J 1800 (CY77/CY75)
C721	0262432F	PP. 15000PF-J 1800V (NOT CY77/CY75)
⚠ C722	0299707F	PP. 0.015UF-K 630V(CY77/CY75)
⚠ C722	0299708F	PP. 0.018UF-K 630V (NOT CY77/CY75)
C723	0263001	EL. 3.3UF-M 100V
⚠ C724	0299931F	PP. 0.27UF-K 200V
⚠ C725	0800003R	EL. 1.0UF-M 50V
C726	0299931F	PP. 0.27UF-K 200V(CY77/CY75)
C726	0299932F	PP. 0.33UF-K 200V (NOT CY77/CY75)
⚠ C728	0800064R	EL. 330UF-M 6.3V
C73A	0800041R	EL. 47UF-M 16V
C73H	0244503R	CD. 1500PF-K 500V TAPE
C73J	0880003R	MC. 0.001U (NOT CZ73)
C73J	0880005R	MC. 0.0022 (ONLY CZ73)
C730	0800084F	EL. 1000UF-M 35V
C732	0800082F	EL. 1000UF-M 16V
C735	0243508R	CD. 390PF-K 500V
C736	0244501R	CD. 1000PF-K 500V
⚠ C737	0800019R	CD. 10UF-M 63V
C738	0253974	EL. 33UF-M 250V
C74A	0800354R	EL. 470UF-M 25V
C74H	0243508R	CD. 390PF-K 500V
C742	0254823G	EL. 100UF-M 160V
C747	0880016R	PF. 0.1UF 50V
C748	0800015R	EL. 10UF-M 16V
C749	0800049R	EL. 100UF-M 16V
C75C	0800003R	EL. 1.0UF-M 50V
C75E	0880013R	MC. 0.033UF-K 50V
C75K	0800066R	EL. 330UF-M 16V
C750	0800041R	EL. 47UF-M 16V
C751	0800015R	EL. 10UF-M 16V
C752	0244501R	CD. 1000PF-K 500V
C753	0800015R	EL. 10UF-M 16V
C754	0880016R	PF. 0.1UF 50V
C755	0880005R	MC. 0.0022U
C757	0880009R	PF. 0.01UF-K 50V
C76A	0243508R	CD. 390PF-K 500V
C76D	0890089R	CD. 1500PF-K 50V
C76E	0890085R	CD. 680PF-K 50V
C76F	0890086R	CD. 820PF-K 50V
C781	0880016R	PF. 0.1UF 50V
C793	0800041R	EL. 47UF-M 16V
		SUB PWB CAPACITORS
CA70	0800041R	EL. 47UF-M 16V (NOT CY77/CY75)
CA71	0800015R	EL. 10UF-M 16V (NOT CY77/CY75)
CA72	0800015R	EL. 10UF-M 16V (NOT CY77/CY75)
CM02	0880009R	PF. 0.01UF-K 50V (NOT CY77/CY75)
CM04	0880009R	PF. 0.01UF-K 50V (NOT CY77/CY75)
CV01	0800001R	EL. 0.47UF-M 50V (SME) (NOT CZ73)
CV04	0890081R	CD. 330PF 50V (NOT CZ73)
CV05	0800049R	EL. 100UF-M 16V (NOT CZ73)
CV06	0880009R	PF. 0.01UF-K 50V (NOT CZ73)
CV09	0890074R	CD. 100PF-J 50V (NOT CZ73)
CV10	0244541F	CD. 0.01MF-K B 500V (NOT CZ73)
CV11	0890074R	CD. 100PF-J 50V (NOT CZ73)
CV12	0244509R	CD. 4700PF-KB B 500V (NOT CZ73)
CV13	0253959F	EL. 47UF-M 160V (NOT CZ73)
CV14	0253959F	EL. 47UF-M 160V (NOT CZ73)
CV15	0253957F	EL. 22UF-M 160V (NOT CZ73)
CV16	0247848R	CD. 56PF-J SL 500V (NOT CZ73)
CV17	0800074N	EL. 470UF-M 16V (NOT CZ73)
CV18	0800042R	EL. 47UF-M 25V (NOT CZ73)
CV19	0253959F	EL. 47UF-M 160V (NOT CZ73)
CV20	0244541F	CD. 0.01MF-K B 500V (NOT CZ73)
CV21	0244171R	CD. 0.01UF-Z F 50V TAPE (NOT CZ73)
CV22	0880016R	PF. 0.1UF 50V (NOT CZ73)
CV23	0800015R	EL. 10UF-M 16V (NOT CZ73)
CV24	0800041R	EL. 47UF-M 16V (NOT CZ73)
CV28	0890076R	CD. 150PF-K 50V
CV54	0890077R	CD. 180PF-K 50V (NOT CZ73)
CY70	0800015R	EL. 10UF-M 16V (NOT CY77/CY75)
C630	0880054R	PF. 0.056UF-KEB 50V (NOTCZ77/CZ75)
C630	0880056R	PF 0.082UF-KEB 50V (CZ77/CZ75)
C630	0880014R	MC 0.047U (CZ73)
C631	0800041R	EL. 47UF-M 16V
C632	0880004R	MC. 0.0015U
C632	0880015R	EL. 10UF-M 16V (NOT CZ77/CZ75)
C633	0800005R	EL. 2.2UF-M 50V
C634	0800003R	EL. 1.0UF-M 50V

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
637	0800018R	EL. 10UF-M 50V	C947	0800047R	EL. 100UF-M 6.3V
638	0800005R	EL. 2.2UF-M 50V	C948	0800049R	EL. 100UF-M 16V
735	0880016R	PF. 0.1UF 50V	C953	0800049R	EL. 100UF-M 16V
750	0800005R	EL. 2.2UF-M 50V	C954	0880009R	PF. 0.01UF-K 50V
751	0800044R	EL. 47UF-M 50V	C956	0244216	CD. 2700PF-K 2KV
752	0284623R	EL. 1UF-SME(BP) 50V	C957	0243507R	CD. 330PF-K 500V TAPE
851	0800049R	EL. 100UF-M 16V	C959	0800023R	EL. 22UF-M 16V
859	0255524F	EL. 4.7MF-M 250V(KME)	C960	0800059R	EL. 220UF-M 25V
860	0244889	CD. 2200PF-K B 2KV	C961	0243507R	CD. 330PF-K 500V TAPE
866	0880009R	PF. 0.01UF-K 50V	C992	0243507R	CD. 330PF-K 500V TAPE
874	0890087R	CD. 1000PF-K 50V	C993	0243507R	CD. 330PF-K 500V TAPE
875	0890087R	CD. 1000PF-K 50V			
876	0890087R	CD. 1000PF-K 50V			
877	0890074R	CD. 100PF-J 50V			**MAIN PWB DIODES**
878	0890074R	CD. 100PF-J 50V			
879	0890074R	CD. 100PF-J 50V	DC01	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
880	0890083R	CD. 470PF-K 50V (CZ75/CY75)	DC02	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
880	0890083R	CD. 470PF-K 50V (CY75)	DS01	2339868M	ZD HZS9C2 TAPE (NOT CZ77/CY77)
880	0890085R	CD. 680PF-K 50V (NOT CY75)	D0A1	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
881	0890083R	CD. 470PF-K 50V (NOT CY77/CZ73)	D0H1	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
881	0890084R	CD. 560PF-K 50V (CY77/CZ73)	DOM1	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
882	0890083R	CD. 470PF-K 50V (CY77)	DOM2	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
882	0890084R	CD. 560PF-K 50V (NOT CY77)	DOM3	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C884	0880009R	PF. 0.01UF-K 50V	D00A	2339867M	ZD HZS-9-C1 TAPE (SI.200MA)
⚠ C901	AN00144S	PF. (0.1UF250V)			(NOT CY77/CY75)
⚠ C902	AN00144S	PF. (0.1UF250V)	D00C	2339867M	ZD HZS-9-C1 TAPE (SI.200MA)
⚠ C903	0248593F	CD. 4700PF-Z 250V			(NOT CY77/CY75)
⚠ C904	0248593F	CD. 4700PF-Z 250V	D00E	2339867M	ZD HZS-9-C1 TAPE (SI.200MA)
C905A	AL00341	EL. 470UF 200V			(NOT CY77/CY75)
C905B	AL00341	EL. 470UF 200V	D00F	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C906	0800015R	EL. 10UF-M 16V	D00G	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C908	0800067N	EL. 330UF-M 25V(SME)	D00H	2339867M	ZD HZS-9-C1 TAPE (SI.200MA)
C909	0890087R	CD. 1000PF-K 50V			(NOT CY77/CY75)
C911	0244729	CD. 2200PF 2KV	D00J	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C913	0890083R	CD. 470PF-K 50V	D00K	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C915	0890089R	CD. 1500PF-K 50V			(NOT CZ77/CY77)
C920	0253974F	EL. 33UF 250V	D00T	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
⚠ C930	0249392F	CD. 2200PF 125V	D00X	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C935	0800368F	EL. 2200UF-M 25V	D001	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C936	0253862	EL. 220UF-M 160V	D002	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C937	0800019R	EL. 10UF-M 63V	D003	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C938	0284408F	EL. 1000UF 16V	D004	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C939	0800056R	EL. 220UF-M 6.3V	D005	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C940	0880016R	PF. 0.1UF 50V	D006	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C941	0800003R	EL. 1.0UF-M 50V	D007	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C942	0800056R	EL. 220UF-M 6.3V	D008	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C945	0800056R	EL. 220UF-M 6.3V	D009	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
C946	0800059R	EL. 220UF-M 25V	D010	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION
D011	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D019	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D020	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D021	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D022	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D05A	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D09A	2339867M	ZD HZS-9-C1 TAPE (SI.200MA)
D09C	2339867M	ZD HZS-9-C1 TAPE (SI.200MA)
D09D	2339867M	ZD HZS-9-C1 TAPE (SI.200MA)
D09E	2339867M	ZD HZS-9-C1 TAPE (SI.200MA)
D099	2398611M	DI 1SS254 TAPE (35V)SI 4NSEC (NOT CZ73)
D101	2339837M	ZD HZS-5C1 TAPE
D102	2339971M	ZD HZS33-1 TA
D103	2339837M	ZD HZS-5C1 TAPE (NOT CZ73)
D104	2339971M	ZD HZS33-1 TA (NOT CZ73)
D153	2339837M	ZD HZS-5C1 TAPE (NOT CZ73)
D154	2339868M	ZD HZS9C2 TAPE (NOT CZ73)
D155	2339868M	ZD HZS9C2 TAPE (NOT CZ73)
D299	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC (NOT CZ73)
D393	2339889M	ZD HZS12 (C3) 0.005A (NOT CZ73)
D394	2339889M	ZD HZS12 (C3) 0.005A (NOT CZ73)
D4F0	2339868M	ZD HZS9C2 TAPE (NOT CY77/CY75)
D4F1	2339868M	ZD HZS9C2 TAPE (NOT CY77/CY75)
D401	2339812M	ZD HZS3A2 TA (SI.200MA)
D402	2339812M	ZD HZS3A2 TA (SI.200MA)
D403	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D406	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D410A	2339812M	ZD HZS3A2 TA (SI.200MA)
D411	2339812M	ZD HZS3A2 TA (SI.200MA)
D412	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D441	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D5A1	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D5A2	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D5A3	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D501	2339819M	ZD HZS3C3 TA
D502	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D552	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D553	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D554	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D555	2339842M	ZD HZS6A2 TA
D556	2339868M	ZD HZS9C2 TAPE
D557	2339868M	ZD HZS9C2 TAPE
D558	2339868M	ZD HZS9C2 TAPE
D560	2339868M	ZD HZS9C2 TAPE
D604	2339491M	DI AM01Z (200 TAPE) 1A
D605	2339222M	ZD HZS27-2L
D606	2339222M	ZD HZS27-2L
D702	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D705	CH00031M	DI AU02V1(280V)
D707	2339242M	ZD HZS33L2 TAPE
⚠ D708	2339223M	ZD HZS27 (3L)
D709	2339242M	ZD HZS33L2 TAPE
D710	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D71A	2339481M	DI AS01Z (200 TAPE) SI 0.6A
D713	2339491M	DI AM01Z (200 TAPE) 1A
D715	2338944	DI FML-G12S(F)(200V)SI 0.04US
⚠ D716	2348511	DI RS3FS
⚠ D717	2348511	DI RS3FS (NOT CY77/CY75)
⚠ D718	2336612M	DI RU3AM TA
D72A	2339849M	ZD HZS6C3 TA
D72H	2339851M	ZD HZS7A1 TAPE (SI.200MA)
D726	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D73A	2339846M	ZD HZS6B3 TA
D73C	2339481M	DI AS01Z (200 TAPE) SI 0.6A
D73H	CH00031M	DI AU02V1(280V)
D741	2339491M	DI AM01Z (200 TAPE) 1A
D743	2339834M	ZD HZS5(B1) TAPE
D745	2339491M	DI AM01Z (200 TAPE) 1A
D75A	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D750	2339868M	ZD HZS9C2 TAPE
D751	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
⚠ D752	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D753	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D754	2339868M	ZD HZS9C2 TAPE
D755	2339868M	ZD HZS9C2 TAPE
D756	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D760	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
		SUB PWB DIODES
DA70	2339885M	ZD HZS12B2 TA (NOT CY77/CY75)
DA71	2339885M	ZD HZS12B2 TA (NOT CY77/CY75)
DV01	2339491M	DI AM01Z (200 TAPE) 1A (NOT CZ73)
DV02	2339491M	DI AM01Z (200 TAPE) 1A (NOT CZ73)
DV03	2339491M	DI AM01Z (200 TAPE) 1A (NOT CZ73)
DV04	2339491M	DI AM01Z (200 TAPE) 1A (NOT CZ73)
DV05	2398611M	DI 1SS254 TAPE (35V)SI 4NSEC (NOT CZ73)
DV06	2398611M	DI 1SS254 TAPE (35V)SI 4NSEC (NOT CZ73)
D626	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC (CZ77/CZ75)
D627	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D628	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
D719	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
720	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC	D955	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC
721	2339971M	ZD HZS33-1 TA			
722	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			
805	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			**MAIN PWB PLUGS AND CONN.**
804	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			
806	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC	EAN	2974089S	4J CONNECTOR L=220 (NOT CZ73)
807	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC	EGND	2956487	CONNECTOR CO-01C-A0R0-551
808	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			(NOT CY77/CY75)
809	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC	EGND	2956488	1J MINI-AMPIN CONNECTOR
810	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			(CY77/CY75)
D820	2339601M	ZD HZS-2 TAPE (ALL) SI 400MW	EVM1	EF06141	7J BOARD-IN CONNECTOR (430)
D821	2339601M	ZD HZS-2 TAPE (ALL)SI 400MW			(NOT CZ73)
D822	2339601M	ZD HZS-2 TAPE (ALL)SI 400MW	EY1	2974162S	6J CONNECTOR L=620
D823	2339868M	ZD HZS9C2 TAPE	EY2	2976675	2P PLUG PIN WITH BASE
D825	2339868M	ZD HZS9C2 TAPE			
D826	2339868M	ZD HZS9C2 TAPE			
D827	2339868M	ZD HZS9C2 TAPE			**SUB PWB FUSE HOLDERS,CONN.**
D828	2339868M	ZD HZS9C2 TAPE			
D829	2339868M	ZD HZS9C2 TAPE	EF	2956484	CONN. W/WIRE MINI 1J(L80)W/AMP IN
D830	2339868M	ZD HZS9C2 TAPE			(CZ77/CZ75)
⚠ D901	2342062	DI D3SBA60-4103	EF901	2720641	FUSE HOLDER
D902	2339481M	DI AS01Z (200 TAPE) SI 0.6A	EF902	2720641	FUSE HOLDER
D903	2339981M	ZD HZS36-1 TA	E851	EY00302	CPT-SOCKET(S) (NOTCZ77/CZ75)
D905	2339481M	DI AS01Z (200 TAPE) SI 0.6A	E851	2698675	SOCKET CPT SOCKET(15.24)
D906	2339481M	DI AS01Z (200 TAPE) SI 0.6A			(CZ77/CZ75)
D909	2339481M	DI AS01Z (200 TAPE) SI 0.6A	⚠ E901	2972841	AC POWER CORD (FILTER IN)
D910	2339481M	DI AS01Z (200 TAPE) SI 0.6A			**MAIN PWB FUSES**
D920	CH00031M	DIODE AU02V1(280V)	⚠ F601	2722382	FUS-DC0.75A-J/UL(L)
D921	CH00031M	DIODE AU02V1(280V)			
D923	2339868M	ZD HZS9C2 TAPE			
D924	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			**SUB PWB FUSES**
D930	2339481M	DI AS01Z (200 TAPE) SI 0.6A	⚠ F901	2722359	FUSE AC06A
D931	2339491M	DI AM01Z (200 TAPE) 1A	⚠ F902	2722357	FUSE AC04A
D932	2338944	DI FML-G12S (F) (200V)SI 0.04US			
D934	2349861	DI FMU-G16S			
D936	2338944	DI FML-G12S (F) (200V)SI 0.04US			**SUB PWB SURGE PROTECTOR**
D937	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC	⚠ G901	2340741	SURGE PROTECTOR DSP-301N-S00B
D938	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			
D939	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			
D940	2339223M	ZD HZS27 (3L)			**SUB PWB SPARK GAP**
D941	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC	G801	2340037	SPARK GAP
D942	2339882M	ZD HZS-12(A2) TAPE			
D943	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			**MAIN PWB CONDENSERS WITH 3 TERMINALS**
D946	2339868M	ZD HZS9C2 TAPE			
D947	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC			
D948	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC	H001	2791754R	CONDENSER WITH 3 TERMINAL 100PF
D951	2339491M	DI AM01Z (200 TAPE) 1A	H002	2791754R	CONDENSER WITH 3 TERMINAL 100PF
D952	2398611M	DI 1SS254 TAPE (35V) SI 4NSEC	H003	2791754R	CONDENSER WITH 3 TERMINAL 100PF

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SYMBOL NO.	PART NO.	PART DESCRIPTION
H004	2791754R	CONDENSER WITH 3 TERMINAL 100PF
H006	2791754R	CONDENSER WITH 3 TERMINAL 100PF
H007	2791754R	CONDENSER WITH 3 TERMINAL 100PF
H008	2791754R	CONDENSER WITH 3 TERMINAL 100PF
H009	2791754R	CONDENSER WITH 3 TERMINAL 100PF
		SUB PWB ANALOG IC,FILTER
HM01	CZ00501U	ANALOG MONOLITHIC IC (PIC-21043SR) (NOT CY77/CY75)
⚠ H901	2793313	CP-EXN-G131P365L
		MAIN PWB INTEGRATED CIRCUITS
IS01	CP04041	UPC1854CT
IS02	2004901	IC TA8776N (NOT CZ77/CY77)
IS03	2362602	IC UPC4558 (CZ77/CY77)
IS04	2362602	IC UPC4558 (CZ77/CY77)
IY01	2020452	ANALOG MONOLITHIC IC (CXA1545AS)
I001	CP04241	DIGITAL MONOLITHIC IC (LC864148B)
I002	CP04021U	ST24C08
I003	2003522R	IC PST572D-2 (ANALOG IC)
I004	2362651	IC HD14053B (NOT CZ73)
I005	CP04111	Z89313
I006	CZ00461R	RESET IC BMR-4201FT TAPE
I008	2366361	IC.AN7805
I009	CZ00461R	RESET IC BMR-4201FT TAPE
I201	CP04301	TA1268N
I301	2381211	IC M51494L
⚠ I403	CP04061	ANALOG MONOLITHIC IC (LA4603)
I601	2913981	IC AN5521
		SUB PWB INTEGRATED CIRCUITS
I621	2362601	IC HA17458PS
⚠ I901	CT00004	STR-F6516
⚠ I902	2000465	IC PS2501-1 (KC/LC)
⚠ I904	2000465	IC PS2501-1 (KC/LC)
I931	2381344	IC SE130N
		MAIN PWB JACKS ECT.
JS01	2693851	TERMINAL JXT1043
JY01	ES00141	8P A/V JACK (CZ73)
JY01	2693886	TERMINAL(TERMINAL BOARD)(NOT CZ73)
JY02	ES00131	JACK (NOT CZ73)
J30F	2673602	US13 (CY77/CY75)
		SUB PWB JACKS
J31F	ES00023	JACK (NOT CY77/CY75)
		MAIN PWB INDUCTORS/COILS
LC01	2122945M	COIL-AXIAL 15UHKM BELTING
LS01	BH00697R	COIL 100UH
LS03	BH00697R	COIL 100UH (CZ77/CY77)
LS04	BH00697R	COIL 100UH (CZ77/CY77)
LY01	BH00697R	COIL 100UH
LY04	2122956M	COIL-AXIAL100UHKM BELTING(NOT CZ73)
LY08	2122253M	COIL-AXIAL 100UH-K (CZ77/CY77)
LY09	2122253M	COIL-AXIAL 100UH-K
LY10	2122253M	COIL-AXIAL 100UH-K
LY11	2122253M	COIL-AXIAL 100UH-K
L0A1	2122253M	COIL-AXIAL 100UH-K
L0A2	2122253M	COIL-AXIAL 100UH-K
L001	BH00101	OSC COIL
L003	2122253M	COIL-AXIAL 100UH-K
L005	BH00697R	COIL 100UH (NOT CY77/CY75)
L010	2122956M	COIL-AXIAL 100UHKM BELTING
L011	BH00697R	COIL 100UH (CY77/CY75)
L012	2122253M	COIL-AXIAL 100UH-K
L05A	BH00697R	COIL 100UH
L101	2122253M	COIL-AXIAL 100UH-K
L102	2122253M	COIL-AXIAL 100UH-K
L103	2122253M	COIL-AXIAL 100UH-K
L104	BH00697R	COIL 100UH (NOT CZ73)
L202	2122253M	COIL-AXIAL 100UH-K (NOT CZ73)
L204	BJ00131	VCO TANK COIL 52.37MHZ (NOT CZ73)
L205	2122945M	COIL-AXIAL 15UHKM BELTING (NOT CZ73)
L3F1	BH00697R	COIL 100UH
L302	BH00697R	COIL 100UH
L501	2122253M	COIL-AXIAL 100UH-K
L550	2122956M	COIL-AXIAL 100UHKM BELTING
L601	BH00204R	FILTER COIL 18UH
L701	2122652M	FERRITE CORE
L702	2124513	COIL-H.LINEARITY M1LXU1
L703	2771893	FERITE BEADS CORE (005)
⚠ L704	2275381	COIL-CHOKING 1000UH
L705	2123781R	FILTER COIL 101K
L709	BH00206R	FILTER COIL 27UH (NOT CZ77/CZ75)
L709	BH00207R	FILTER COIL 33UH (ONLY CZ77/CZ75)
L71A	2122652M	FERRITE CORE

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
710	BH00688R	COIL 22UH			
711	2122652M	FERRITE CORE			
751	2122938M	COIL-AXIAL 4.7UHKM BELTING			**MAIN PWB TRANSISTORS**
			QC01	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
		SUB PWB INDUCTORS/COILS	QC02	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
			QC03	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
V01	BH00684R	COIL 10UH (NOT CZ73)	QC04	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
V02	2123468M	FERRITE BEADS CORE LEAD 0.8MH	QC05	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
		(NOT CZ73)	QS01	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
V03	2123468M	FERRITE BEADS CORE LEAD 0.8MH			(CZ77/CY77)
		(NOT CZ73)	QS02	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
V04	2123468M	FERRITE BEADS CORE LEAD 0.8MH			(CZ77/CY77)
		(NOT CZ73)	QS03	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
V07	BH00695R	COIL 68UH (NOT CY75/CZ73)			(CZ77/CY77)
V07	BH00697R	COIL 100UH (ONLY CY75)	QS04	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
851	BH00689R	COIL 27UH			(CZ77/CY77)
852	BH00689R	COIL 27UH	QY07	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
853	BH00689R	COIL 27UH			(NOT CZ73)
854	2122253M	COIL-AXIAL 100UH-K	QY08	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
855	2122253M	COIL-AXIAL 100UH-K	QY20	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
856	2122253M	COIL-AXIAL 100UH-K	QY50	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
857	2123468M	FERRITE BEADS CORE LEAD 0.8MH	QY51	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
858	2123468M	FERRITE BEADS CORE LEAD 0.8MH	QY52	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
859	2123468M	FERRITE BEADS CORE LEAD 0.8MH	QY53	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L860	2123468M	FERRITE BEADS CORE LEAD 0.8MH	QY54	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L861	2123468M	FERRITE BEADS CORE LEAD 0.8MH	QY55	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L862	2123468M	FERRITE BEADS CORE LEAD 0.8MH			(NOT CZ73)
L863	2123468M	FERRITE BEADS CORE LEAD 0.8MH	Q0H1	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
⚠ L901	2169462	LINE FILTER COIL FX--7355-60	Q0H2	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
⚠ L902	2169462	LINE FILTER COIL FX--7355-60	Q00A	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L904	2124365	DC NOISE FILTER	Q00B	2320631M	TRS. 2SA673 (B 26TZ/C 26TZ) SI 80MHZ
L905	2122652M	FERRITE CORE	Q001	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
L906	2122652M	FERRITE CORE	Q002	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
L907	2122652M	FERRITE CORE	Q004	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L908	2122652M	FERRITE CORE	Q005	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
L909	2122652M	FERRITE CORE			(NOT CZ73)
L910	2122652M	FERRITE CORE	Q006	2320631M	TRS. 2SA673 (B 26TZ/C 26TZ) SI 80MHZ
L930	2122652M	FERRITE CORE			(NOT CZ73)
L932	2122652M	FERRITE CORE	Q007	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L933	2122652M	FERRITE CORE	Q008	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L934	2122652M	FERRITE CORE	Q009	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L935	2122652M	FERRITE CORE	Q010	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L936	2122652M	FERRITE CORE	Q011	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
941	2122652M	FERRITE CORE	Q012	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L942	2122652M	FERRITE CORE	Q013	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
L950	BZ01932	DC NOISE FILTER	Q014	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
			Q015	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ

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SYMBOL NO.	PART NO.	PART DESCRIPTION
Q016	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
Q020	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
Q021	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
Q101	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q151	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ (NOT CZ73)
Q152	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ (NOT CZ73)
Q153	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ (NOT CZ73)
Q201	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ (NOT CZ73)
Q3F0	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q301	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q401	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q402	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q403	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q404	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q405	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q406	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q410	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q411	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q412	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
Q501	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q551	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q70A	2320647M	TRS. 2SC1213 (C 21 TZ/D 21 TZ)SI 80MHZ4
Q70H	2320647M	TRS. 2SC1213 (C 21 TZ/D 21 TZ)SI 80MHZ4 (NOT CZ77/CY77)
Q70H	2323523M	TRS. 2SD789 D TAPE (ONLY CZ77/CY77)
Q701	2323523M	TRS. 2SD789 D TAPE
⚠ Q702	2315275F	TRS. 2SC4589-06 (1500V)
Q703	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q708	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
Q710	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q717	2323523M	TRS. 2SD789 D TAPE
Q718	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q719	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q752	2323434	TRS. 2SC1983 (O/Y)
Q753	2320631M	TRS. 2SA673 (B 26TZ/C 26TZ) SI 80MHZ
Q754	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
		SUB PWB TRANSISTORS
QA70	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ (NOT CY77/CY75)
QA71	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ (NOT CY77/CY75)
QV01	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ (NOT CZ73)
QV02	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ (NOT CZ73)
QV03	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ (NOT CZ73)
QV04	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ (NOT CZ73)
QV05	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ (NOT CZ73)
QV06	2327772M	TRS.2SC3413 TAPE (B/C) SI 200MHZ (NOT CZ73)
QV07	2320647M	TRS. 2SC1213 (C 21 TZ/D 21 TZ)SI 80MHZ (NOT CZ73)
QV08	2321351M	TRS.2SA836/844D/E 100MA200MW 200MHZSI (NOT CZ73)
QV09	2315381	TRS. 2SA1837 (NOT CZ73)
QV10	2315391	TRS. 2SC4793 (NOT CZ73)
QV11	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ (NOT CZ73)
QV12	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ (NOT CZ73)
Q650	2320598M	TRS. 2SC458 (B TZ/C TZ/D TZ)
Q651	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q750	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q751	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q851	2315491	TRS. 2SC4544
Q852	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
Q854	2315491	TRS. 2SC4544
Q855	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
Q857	2315491	TRS. 2SC4544
Q858	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ
Q859	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q901	2323782	THYRISTOR 03P2M
Q905	2323782	THYRISTOR 03P2M
Q907	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q908	2327883M	TRS. 2SA1207 (S/T) SI 150MHZ
Q909	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ) SI 80MHZ
Q913	2323431	TRS. 2SC1983
Q914	2323431	TRS. 2SC1983
Q915	2321321M	TRS. 2SA844 (D TZ/E TZ) SI 200MHZ
Q916	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q921	2320596M	TRS. 2SC458 (C TZ/D TZ) SI 230MHZ
Q922	2324322M	TRS. 2SC2610-05 TZ TAPE

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION
		MAIN PWB RESISTORS
RA01	0700051M	CF. 1/16W 5.6K-JB
RA02	0700051M	CF. 1/16W 5.6K-JB
RA03	0700051M	CF. 1/16W 5.6K-JB
RA04	0700051M	CF. 1/16W 5.6K-JB
RA05	0700051M	CF. 1/16W 5.6K-JB
RA06	0700051M	CF. 1/16W 5.6K-JB
RA07	0700051M	CF. 1/16W 5.6K-JB
RA08	0700051M	CF. 1/16W 5.6K-JB
RA11	0700041M	CF. 1/16W 1.0K-JB
RA12	0700041M	CF. 1/16W 1.0K-JB
RA50	0100065M	CF. 1/8W 1K-JB
RA51	0100113M	CF. 1/8W 100K-JB (NOT CZ73)
RA52	0100065M	CF. 1/8W 1K-JB
RA53	0100113M	CF. 1/8W 100K-JB (NOT CZ73)
RA58	0100065M	CF. 1/8W 1K-JB (NOT CZ73)
RA59	0100113M	CF. 1/8W 100K-JB
RA60	0100065M	CF. 1/8W 1K-JB (NOT CZ73)
RA61	0100113M	CF. 1/8W 100K-JB
RA64	0100123M	CF. 1/8W 270K-JB
RA65	0100123M	CF. 1/8W 270K-JB
RA66	0100123M	CF. 1/8W 270K-JB
RA67	0100123M	CF. 1/8W 270K-JB
RC02	0700027M	CF. 1/16W 100-JB
RC04	0700027M	CF. 1/16W 100-JB
RC05	0700032M	CF. 1/16W 220-JB
RC06	0700036M	CF. 1/16W 470-JB
RC07	0700038M	CF. 1/16W 680-JB
RC08	0700044M	CF. 1/16W 1.8K-JB
RC09	0700056M	CF. 1/16W 15K-JB
RC10	0700055M	CF. 1/16W 12K-JB
RC11	0700041M	CF. 1/16W 1.0K-JB
RC12	0700053M	CF. 1/16W 8.2K-JB
RC13	0700027M	CF. 1/16W 100-JB
RC14	0700027M	CF. 1/16W 100-JB
RC15	0700039M	CF. 1/16W 820-JB
RC16	0100038M	CF. 1/8W 75-JB
RC18	0700057M	CF. 1/16W 18K-JB
RC19	0700035M	CF. 1/16W 390-JB
RC20	0700027M	CF. 1/16W 100-JB
RC21	0700058M	CF. 1/16W 22K-JB
RC22	0700058M	CF. 1/16W 22K-JB
RK314	0100057M	CF. 1/8W 470-JB
RS01	0100121M	CF. 1/8W 220K-JB
RS02	0700041M	CF. 1/16W 1.0K-JB
RS03	0100133M	CF. 1/8W 680K-JB
RS04	0100123M	CF. 1/8W 270K-JB
RS05	0700027M	CF. 1/16W 100-JB
RS06	0700027M	CF. 1/16W 100-JB
RS07	0187076M	CF. 1/16W 3.0K-JB
RS08	0187082M	CF. 1/16W 5.1K-JB
RS09	0187094M	CF. 1/16W 16K-JB
RS10	0700037M	CF. 1/16W 560-JB
RS11	0100127M	CF. 1/8W 390K-JB (NOT CZ77/CY77)
RS12	0110211S	MF. 39-JS (NOT CZ77/CY77)
RS21	0700054M	CF. 1/16W 10K-JB
RS22	0700054M	CF. 1/16W 10K-JB (CZ75/CY75)
RS23	0700054M	CF. 1/16W 10K-JB (CZ75/CY75)
RS24	0700054M	CF. 1/16W 10K-JB (CZ75/CY75)
RS25	0700027M	CF. 1/16W 100-JB (NOT CZ77/CY77)
RS26	0700051M	CF. 1/16W 5.6K-JB
RS27	0700027M	CF. 1/16W 100-JB (NOT CZ77/CY77)
RS50	0700045M	CF. 1/16W 2.2K-JB (CZ77/CY77)
RS51	0700045M	CF. 1/16W 2.2K-JB (CZ77/CY77)
RS52	0700045M	CF. 1/16W 2.2K-JB (CZ77/CY77)
RS53	0700045M	CF. 1/16W 2.2K-JB (CZ77/CY77)
RS54	0700063M	CF. 1/16W 47K-JB (CZ77/CY77)
RS55	0700063M	CF. 1/16W 47K-JB (CZ77/CY77)
RS56	0700051M	CF. 1/16W 5.6K-JB (CZ77/CY77)
RS57	0700043M	CF. 1/16W 1.5K-JB (CZ77/CY77)
RS58	0700051M	CF. 1/16W 5.6K-JB (CZ77/CY77)
RS59	0700051M	CF. 1/16W 5.6K-JB (CZ77/CY77)
RS60	0700043M	CF. 1/16W 1.5K-JB (CZ77/CY77)
RS61	0700051M	CF. 1/16W 5.6K-JB (CZ77/CY77)
RS62	0700045M	CF. 1/16W 2.2K-JB (CZ77/CY77)
RS63	0700054M	CF. 1/16W 10K-JB (CZ77/CY77)
RS64	0700045M	CF. 1/16W 2.2K-JB (CZ77/CY77)
RS65	0700054M	CF. 1/16W 10K-JB (CZ77/CY77)
RS66	0700067M	CF. 1/16W 100K-JB (CZ77/CY77)
RS67	0700037M	CF. 1/16W 560-JB (CZ77/CY77)
RS68	0700067M	CF. 1/16W 100K-JB (CZ77/CY77)
RS69	0700054M	CF. 1/16W 10K-JB (CZ77/CY77)
RS70	0700067M	CF. 1/16W 100K-JB (CZ77/CY77)
RS71	0700037M	CF. 1/16W 560-JB (CZ77/CY77)
RS72	0700054M	CF. 1/16W 10K-JB (CZ77/CY77)
RS73	0700067M	CF. 1/16W 100K-JB (CZ77/CY77)
RS74	0700032M	CF. 1/16W 220-JB (CZ77/CY77)
RS75	0700032M	CF. 1/16W 220-JB (CZ77/CY77)
RS76	0700049M	CF. 1/16W 4.7K-JB (CZ77/CY77)
RS77	0700049M	CF. 1/16W 4.7K-JB (CZ77/CY77)
RY01	0700027M	CF. 1/16W 100-JB
RY02	0700027M	CF. 1/16W 100-JB
RY05	0700027M	CF. 1/16W 100-JB
RY06	0700027M	CF. 1/16W 100-JB

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RY07	0700027M	CF. 1/16W 100-JB	R0A9	0700036M	CF. 1/16W 470-JB
RY09	0700041M	CF. 1/16W 1.0K-JB	R0C1	0700047M	CF. 1/16W 3.3K-JB
RY10	0700041M	CF. 1/16W 1.0K-JB	R0C2	0700054M	CF. 1/16W 10K-JB
RY11	0700041M	CF. 1/16W 1.0K-JB	R0C3	0700036M	CF. 1/16W 470-JB
RY12	0700027M	CF. 1/16W 100-JB	R0C4	0700041M	CF. 1/16W 1.0K-JB
RY14	0700027M	CF. 1/16W 100-JB	R0C5	0700041M	CF. 1/16W 1.0K-JB
RY15	0700027M	CF. 1/16W 100-JB	R0C6	0700043M	CF. 1/16W 1.5K-JB
RY20	0700027M	CF. 1/16W 100-JB	R0C7	0700043M	CF. 1/16W 1.5K-JB
RY21	0100061M	CF. 1/8W 680-JB	R0C8	0700051M	CF. 1/16W 5.6K-JB
RY31	0100038M	CF. 1/8W 75-JB	R0C9	0700043M	CF. 1/16W 1.5K-JB
RY32	0100038M	CF. 1/8W 75-JB	R0E1	0700043M	CF. 1/16W 1.5K-JB
RY35	0100038M	CF. 1/8W 75-JB	R0E2	0700051M	CF. 1/16W 5.6K-JB
RY39	0700034M	CF. 1/16W 330-JB (NOT CZ73)	R0E3	0700051M	CF. 1/16W 5.6K-JB
RY40	0114137M	CF. 1/4W 180-JB (NOT CZ73)	R0E4	0700037M	CF. 1/16W 560-JB
RY41	0100037M	CF. 1/8W 68-JB (NOT CZ73)	R0E5	0700037M	CF. 1/16W 560-JB
RY42	0100113M	CF. 1/8W 100K-JB (NOT CZ73)	R0E6	0700037M	CF. 1/16W 560-JB
RY44	0700054M	CF. 1/16W 10K-JB	R0E8	0700027M	CF. 1/16W 100-JB
RY45	0700039M	CF. 1/16W 820-JB	R0E9	0700027M	CF. 1/16W 100-JB
RY47	0700054M	CF. 1/16W 10K-JB	R0FA	0700041M	CF. 1/16W 1.0K-JB
RY49	0700039M	CF. 1/16W 820-JB	R0FC	0700066M	CF. 1/16W 82K-JB
RY50	0700027M	CF. 1/16W 100-JB	R0F2	0700054M	CF. 1/16W 10K-JB
RY52	0700027M	CF. 1/16W 100-JB	R0F3	0700055M	CF. 1/16W 12K-JB
RY53	0700039M	CF. 1/16W 820-JB	R0F8	0700054M	CF. 1/16W 10K-JB
RY54	0700027M	CF. 1/16W 100-JB	R0F9	0700054M	CF. 1/16W 10K-JB
RY55	0700039M	CF. 1/16W 820-JB	R0HA	0700054M	CF. 1/16W 10K-JB
RY56	0700027M	CF. 1/16W 100-JB	R0HC	0700043M	CF. 1/16W 1.5K-JB
RY57	0700036M	CF. 1/16W 470-JB	R0HD	0700048M	CF. 1/16W 3.9K-JB
RY58	0700037M	CF. 1/16W 560-JB	R0HF	0700041M	CF. 1/16W 1.0K-JB
RY59	0700061M	CF. 1/16W 33K-JB	R0H1	0700065M	CF. 1/16W 68K-JB
RY60	0700027M	CF. 1/16W 100-JB	R0H2	0700041M	CF. 1/16W 1.0K-JB
RY61	0700042M	CF. 1/16W 1.2K-JB	R0H3	0700054M	CF. 1/16W 10K-JB
RY64	0100047M	CF. 1/8W 180-JB	R0H4	0700054M	CF. 1/16W 10K-JB
RY70	0100049M	CF. 1/8W 220-JB	R0H5	0700048M	CF. 1/16W 3.9K-JB
RY71	0700063M	CF. 1/16W 47K-JB	R0H6	0700041M	CF. 1/16W 1.0K-JB
RY72	0100063M	CF. 1/8W 820-JB (NOT CZ73)	R0H7	0700041M	CF. 1/16W 1.0K-JB
RY73	0700027M	CF. 1/16W 100-JB (NOT CZ73)	R0H9	0179600M	MG. 10M-J TAPE
RY74	0700036M	CF. 1/16W 470-JB	R0K1	0700063M	CF. 1/16W 47K-JB
RY75	0700036M	CF. 1/16W 470-JB	R0K2	0700059M	CF. 1/16W 27K-JB
R0AA	0187058M	CF. 1/16W 510-JB	R0K3	0700059M	CF. 1/16W 27K-JB
R0A1	0700027M	CF. 1/16W 100-JB	R0K4	0700055M	CF. 1/16W 12K-JB
R0A2	0100059M	CF. 1/8W 560-JB	R0K5	0700055M	CF. 1/16W 12K-JB
R0A2A	0700036M	CF. 1/16W 470-JB	R0K6	0700049M	CF. 1/16W 4.7K-JB
R0A3	0700027M	CF. 1/16W 100-JB	ROM1	0700041M	CF. 1/16W 1.0K-JB
R0A4	0700054M	CF. 1/16W 10K-JB	ROM2	0700041M	CF. 1/16W 1.0K-JB
R0A5	0700054M	CF. 1/16W 10K-JB	ROM3	0700041M	CF. 1/16W 1.0K-JB
R0A6	0700048M	CF. 1/16W 3.9K-JB	ROM4	0700048M	CF. 1/16W 3.9K-JB
R0A7	0700036M	CF. 1/16W 470-JB	ROM5	0700042M	CF. 1/16W 1.2K-JB
R0A8	0700036M	CF. 1/16W 470-JB	ROM7	0700051M	CF. 1/16W 5.6K-JB (NOT CZ77/CY77)

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
OM8	0700048M	CF. 1/16W 3.9K-JB (NOT CZ77/CY77)	R044	0700041M	CF. 1/16W 1.0K-JB
00A	0700047M	CF. 1/16W 3.3K-JB	R045	0700041M	CF. 1/16W 1.0K-JB
00C	0700052M	CF. 1/16W 6.8K-JB	R046	0700027M	CF. 1/16W 100-JB
00R	0700063M	CF. 1/16W 47K-JB	R047	0700051M	CF. 1/16W 5.6K-JB
00S	0700041M	CF. 1/16W 1.0K-JB	R048	0700058M	CF. 1/16W 22K-JB
00W	0700054M	CF. 1/16W 10K-JB	R049	0700054M	CF. 1/16W 10K-JB (NOT CZ73)
001	0700042M	CF. 1/16W 1.2K-JB (CY77/CY75)	R05A	0700044M	CF. 1/16W 1.8K-JB
002	0700041M	CF. 1/16W 1.0K-JB (CY77/CY75)	R05C	0700044M	CF. 1/16W 1.8K-JB
003	0700043M	CF. 1/16W 1.5K-JB (CY77/CY75)	R051	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
004	0700046M	CF. 1/16W 2.7K-JB (CY77/CY75)	R052	0700054M	CF. 1/16W 10K-JB
005	0700049M	CF. 1/16W 4.7K-JB (CY77/CY75)	R053	0700054M	CF. 1/16W 10K-JB
006	0700054M	CF. 1/16W 10K-JB (CY77/CY75)	R054	0700041M	CF. 1/16W 1.0K-JB
R007	0700058M	CF. 1/16W 22K-JB	R055	0700037M	CF. 1/16W 560-JB
R008	0700058M	CF. 1/16W 22K-JB	R056	0700051M	CF. 1/16W 5.6K-JB
R010	0700054M	CF. 1/16W 10K-JB	R057	0700047M	CF. 1/16W 3.3K-JB
R011	0700064M	CF. 1/16W 56K-JB	R058	0700067M	CF. 1/16W 100K-JB (NOT CZ73)
R012	0700049M	CF. 1/16W 4.7K-JB	R059	0700054M	CF. 1/16W 10K-JB (NOT CZ73)
R013	0700027M	CF. 1/16W 100-JB	R06C	0700051M	CF. 1/16W 5.6K-JB
R014	0700027M	CF. 1/16W 100-JB	R06K	0700066M	CF. 1/16W 82K-JB
R015	0700051M	CF. 1/16W 5.6K-JB	R060	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
R016	0700051M	CF. 1/16W 5.6K-JB	R061	0700049M	CF. 1/16W 4.7K-JB
R017	0700027M	CF. 1/16W 100-JB	R062	0700041M	CF. 1/16W 1.0K-JB
R018	0700027M	CF. 1/16W 100-JB	R063	0700041M	CF. 1/16W 1.0K-JB
R019	0700041M	CF. 1/16W 1.0K-JB	R064	0700041M	CF. 1/16W 1.0K-JB
R020	0700041M	CF. 1/16W 1.0K-JB	R065	0700041M	CF. 1/16W 1.0K-JB
R021	0700041M	CF. 1/16W 1.0K-JB	R066	0700054M	CF. 1/16W 10K-JB (CZ77/CY77)
R022	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)	R067	0700054M	CF. 1/16W 10K-JB
R023	0700041M	CF. 1/16W 1.0K-JB	R069	0700027M	CF. 1/16W 100-JB (NOT CZ73)
R024	0700041M	CF. 1/16W 1.0K-JB	R07A	0700051M	CF. 1/16W 5.6K-JB
R025	0700041M	CF. 1/16W 1.0K-JB	R07C	0700051M	CF. 1/16W 5.6K-JB
R026	0700054M	CF. 1/16W 10K-JB	R07E	0700051M	CF. 1/16W 5.6K-JB
R027	0100065M	CF. 1/8W 1K-JB (NOT CY77/CY75)	R07H	0700041M	CF. 1/16W 1.0K-JB
R028	0100065M	CF. 1/8W 1K-JB (NOT CY77/CY75)	R070	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
R029	0700041M	CF. 1/16W 1.0K-JB	R078	0700054M	CF. 1/16W 10K-JB (NOT CZ73)
R030	0700041M	CF. 1/16W 1.0K-JB	R079	0700054M	CF. 1/16W 10K-JB
R031	0700054M	CF. 1/16W 10K-JB	R08A	0700041M	CF. 1/16W 1.0K-JB
R032	0100065M	CF. 1/8W 1K-JB (NOT CY77/CY75)	R08T	0700041M	CF. 1/16W 1.0K-JB
R033	0100067M	CF. 1/8W 1.2K-JB (NOT CY77/CY75)	R081	0700054M	CF. 1/16W 10K-JB
R035	0700045M	CF. 1/16W 2.2K-JB (CZ77/CY77)	R082	0700057M	CF. 1/16W 4.7K-JB
R036	0700041M	CF. 1/16W 1.0K-JB	R083	0700041M	CF. 1/16W 1.0K-JB
R037	0700067M	CF. 1/16W 100K-JB	R084	0700042M	CF. 1/16W 1.2K-JB
R038	0700051M	CF. 1/16W 5.6K-JB	R085	0700063M	CF. 1/16W 47K-JB
R039	0100123M	CF. 1/8W 270K-JB	R086	0700054M	CF. 1/16W 10K-JB
R04A	0700063M	CF. 1/16W 47K-JB	R087	0700054M	CF. 1/16W 10K-JB
R040	0700041M	CF. 1/16W 1.0K-JB	R088	0700054M	CF. 1/16W 10K-JB (CZ77/CY77)
R041	0700049M	CF. 1/16W 4.7K-JB	R09A	0700041M	CF. 1/16W 1.0K-JB
R042	0700041M	CF. 1/16W 1.0K-JB	R09C	0100123M	CF. 1/8W 270K-JB
R043	0700041M	CF. 1/16W 1.0K-JB	R09F	0700063M	CF. 1/16W 47K-JB

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION
R09M	0700042M	CF. 1/16W 1.2K-JB (CZ75/CY75)
R09M	0700044M	CF. 1/16W 1.8K-JB (CZ73)
R09M	0700046M	CF. 1/16W 2.7K-JB (CZ77/CY77)
R09R	0700058M	CF. 1/16W 22K-JB
R09Y	0700041M	CF. 1/16W 1.0K-JB (CZ77/CY77)
R090	0700054M	CF. 1/16W 10K-JB
R091	0700041M	CF. 1/16W 1.0K-JB
R092	0700054M	CF. 1/16W 10K-JB (CZ77/CY77)
R093	0700027M	CF. 1/16W 100-JB
R094	0700027M	CF. 1/16W 100-JB
R095	0700041M	CF. 1/16W 1.0K-JB
R096	0700041M	CF. 1/16W 1.0K-JB
R097	0700027M	CF. 1/16W 100-JB
R098	0700048M	CF. 1/16W 3.9K-JB
R099	0700061M	CF. 1/16W 33K-JB
R101	0700032M	CF. 1/16W 220-JB (NOT CZ73)
R101A	0700032M	CF. 1/16W 220-JB (CZ73)
R102	0700032M	CF. 1/16W 220-JB (NOT CZ73)
R102A	0700032M	CF. 1/16W 220-JB (CZ73)
R103	0700041M	CF. 1/16W 1.0K-JB (CZ73)
R103A	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
R104	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
R104A	0700041M	CF. 1/16W 1.0K-JB (CZ73)
R105	0114133M	CF. SRD 1/4 P 120-J
R106	0100065M	CF. 1/8W 1K-JB
R107	0700041M	CF. 1/16W 1.0K-JB
R109	0100061M	CF. 1/8W 680-JB
R110	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
R111	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
R112	0114133M	CF. 1/4 P 120-J (NOT CZ73)
R113	0100065M	CF. 1/8W 1K-JB (NOT CZ73)
R114	0700063M	CF. 1/16W 47K-JB (NOT CZ73)
R115	0700054M	CF. 1/16W 10K-JB
R151	0700063M	CF. 1/16W 47K-JB (NOT CZ73)
R152	0700058M	CF. 1/16W 22K-JB (NOT CZ73)
R153	0700058M	CF. 1/16W 22K-JB (NOT CZ73)
R154	0700058M	CF. 1/16W 22K-JB (NOT CZ73)
R156	0700058M	CF. 1/16W 22K-JB (NOT CZ73)
R157	0700058M	CF. 1/16W 22K-JB (NOT CZ73)
R159	0700058M	CF. 1/16W 22K-JB (NOT CZ73)
R162	0114133M	CF. 1/4 P 120-J (NOT CZ73)
R163	0700054M	CF. 1/16W 10K-JB (NOT CZ73)
R2A1	0700047M	CF. 1/16W 3.3K-JB
R202	0700027M	CF. 1/16W 100-JB (NOT CZ73)
R203	0700045M	CF. 1/16W 2.2K-JB (NOT CZ73)
R204	0700034M	CF. 1/16W 330-JB (NOT CZ73)
R205	0700034M	CF. 1/16W 330-JB (NOT CZ73)
R206	0100057M	CF. 1/8W 470-JB (NOT CZ73)
R207	0100121M	CF. 1/8W 220K-JB (NOT CZ73)
R208	0100131M	CF. 1/8W 560K-JB (NOT CZ73)
R209	0700051M	CF. 1/16W 5.6K-JB (NOT CZ73)
R297	0100041M	CF. 1/8W 100-JB (NOT CZ73)
R298	0100041M	CF. 1/8W 100-JB (NOT CZ73)
R3F0	0100038M	CF. 1/8W 75-JB (CY77/CY75)
R3F1	0100041M	CF. 1/8W 100-JB
R3F2	0700063M	CF. 1/16W 47K-JB
R3F3	0100041M	CF. 1/8W 100-JB
R3F4	0700059M	CF. 1/16W 27K-JB
R3F5	0700038M	CF. 1/16W 680-JB
R301	0700036M	CF. 1/16W 470-JB
R302	0700057M	CF. 1/16W 18K-JB
R303	0700047M	CF. 1/16W 3.3K-JB
R304	0700055M	CF. 1/16W 12K-JB
R305	0700058M	CF. 1/16W 22K-JB
R306	0700036M	CF. 1/16W 470-JB
R307	0100057M	CF. 1/8W 470-JB
R308	0700027M	CF. 1/16W 100-JB
R309	0700058M	CF. 1/16W 22K-JB
R310	0700062M	CF. 1/16W 39K-JB
R4F0	0100113M	CF. 1/8W 100K-JB (CY77/CY75)
R4F1	0100065M	CF. 1/8W 1K-JB
R4F2	0100065M	CF. 1/8W 1K-JB
R4F3	0100113M	CF. 1/8W 100K-JB (CY77/CY75)
R40A	0700041M	CF. 1/16W 1.0K-JB
R40C	0700054M	CF. 1/16W 10K-JB
R40H	0700062M	CF. 1/16W 39K-JB
R401	0700041M	CF. 1/16W 1.0K-JB
R402	0700033M	CF. 1/16W 270-JB (NOT CZ77/CY77)
R402	0700041M	CF. 1/16W 1.0K-JB (CZ77/CY77)
R403	0700041M	CF. 1/16W 1.0K-JB
R404	0700062M	CF. 1/16W 39K-JB
R405	0700041M	CF. 1/16W 1.0K-JB
R406	0700054M	CF. 1/16W 10K-JB
R407	0700041M	CF. 1/16W 1.0K-JB
R408	0700041M	CF. 1/16W 1.0K-JB
R409	0700033M	CF. 1/16W 270-JB (NOT CZ77/CY77)
R409	0700041M	CF. 1/16W 1.0K-JB (CZ77/CY77)
R41A	0700036M	CF. 1/16W 470-JB
R419	0700036M	CF. 1/16W 470-JB
R420	0700032M	CF. 1/16W 220-JB
R421	0700032M	CF. 1/16W 220-JB
R423	0100113M	CF. 1/8W 100K-JB
R424	0100113M	CF. 1/8W 100K-JB
R425	0700041M	CF. 1/16W 1.0K-JB
R426	0700041M	CF. 1/16W 1.0K-JB
R430	0700041M	CF. 1/16W 1.0K-JB

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
431	0700041M	CF. 1/16W 1.0K-JB	R567	0114141M	CF. 1/4W 270-JB
440	0700053M	CF. 1/16W 8.2K-JB	R570	0700027M	CF. 1/16W 100-JB
441	0700053M	CF. 1/16W 8.2K-JB	R60A	0187098M	CF. 1/16W 24K-JB
442	0700042M	CF. 1/16W 1.2-JB (NOT CZ77/CY77)	R60C	0700027M	CF. 1/16W 100-JB
442	0700046M	CF. 1/16W 2.7K-JB (CZ77/CY77)	R60H	0700027M	CF. 1/16W 100-JB
443	0700042M	CF. 1/16W 1.2-JB (NOT CZ77/CY77)	R605	0100117M	CF. 1/16W 150K-JB
443	0700046M	CF. 1/16W 2.7K-JB (CZ77/CY77)	R608	0113746M	CF. 1/2W 680-JB (CZ73)
444	0700041M	CF. 1/16W 1.0K-JB	R608	0113750M	CF. 1/2W 1.0K-JB (CY77/CY75)
445	0100053M	CF. 1/8W 330-JB	R609	0119722M	MF. 1.0-JB/W (NOT CZ77/CZ75)
446	0700041M	CF. 1/16W 1.0K-JB	R609	0119840M	MF. 1W 0.75-JB (CZ77/CZ75)
447	0700052M	CF 1/16W 6.8K-JB	R610	0700032M	CF. 1/16W 220-JB (CZ77/CY75)
45A	0700049M	CF. 1/16W 4.7K-JB	R610	0700038M	CF. 1/16W 680-JB (CZ73)
45H	0700049M	CF. 1/16W 4.7K-JB	R611	0700055M	CF. 1/16W 12K-JB (CZ73)
450	0100077M	CF. 1/8W 3.3K-JB	R611	0700056M	CF. 1/16W 15K-JB (NOT CZ73)
451	0100077M	CF. 1/8W 3.3K-JB	R612	0700041M	CF. 1/16W 1.0K-JB
453	0700045M	CF. 1/16W 2.2K-JB	R614	0700061M	CF. 1/16W 33K-JB
457	0700054M	CF. 1/16W 10K-JB	R615	0700041M	CF. 1/16W 1.0K-JB
461	0700054M	CF. 1/16W 10K-JB	R616	0700054M	CF. 1/16W 10K-JB
462	0700058M	CF. 1/16W 22K-JB	R617	0113733M	CF. 1/2P-B 220-JB
463	0700054M	CF. 1/16W 10K-JB	R618	0700059M	CF. 1/16W 27K-JB
R5FF	0700041M	CF. 1/16W 1.0K-JB	R637	0110115S	MF. 56-JS
R501	0700066M	CF. 1/16W 82K-JB	R699	0113748M	CF. 1/2 P-B 820-JB(CY77/CY75)
R502	0700066M	CF. 1/16W 82K-JB	R716	0113729M	CF. 1/2W 150-JB
R503	0100111M	CF. 1/8W 82K-JB	R718	0100037M	CF. 1/8W 68-JB
R504	0700038M	CF. 1/16W 680-JB	R720	0114143M	CF. 1/4W 330-JB
R505	0700038M	CF. 1/16W 680-JB	⚠ R721	0119838S	MF. 1/4-S 0.5-J
R506	0700041M	CF. 1/16W 1.0K-JB	R722	0700045M	CF. 1/16W 2.2K-JB
R507	0700041M	CF. 1/16W 1.0K-JB	R723	0100099M	CF. 1/8W 27K-JB
R509	0700051M	CF. 1/16W 5.6K-JB	R724	0700043M	CF. 1/16W 1.5K-JB
R510	0700047M	CF. 1/16W 3.3K-JB	⚠ R725	0119505S	MF. 1/4W 2.2-J
R510A	0700037M	CF. 1/16W 560-JB	⚠ R726	0119505S	MF. 1/4W 2.2-J
R511	0700031M	CF. 1/16W 180-JB	R729	0700048M	CF. 1/16W 3.9K-JB
R512	0700061M	CF. 1/16W 33K-JB	R73A	0114049M	CF. 1/4W 22-JB
R551	0700044M	CF. 1/16W 1.8K-JB	R73E	0119838S	MF. 1/4-S 0.5-J
R552	0700044M	CF. 1/16W 1.8K-JB	R73H	0114143M	CF. 1/4W 330-JB
R553	0700044M	CF. 1/16W 1.8K-JB	R730	0700049M	CF. 1/16W 4.7K-JB
R554	0700032M	CF. 1/16W 220-JB	R731	0700052M	CF. 1/16W 6.8K-JB
R555	0700032M	CF. 1/16W 220-JB	R732	0100077M	CF. 1/8W 3.3K-JB
R556	0700032M	CF. 1/16W 220-JB	⚠ R736	0700032M	CF. 1/16W 220-JB
R557	0700043M	CF. 1/16W 1.5K-JB	R739	0700041M	CF. 1/16W 1.0K-JB
R558	0700043M	CF. 1/16W 1.5K-JB	R74C	0100107M	CF. 1/8W 56K-JB
R559	0700043M	CF. 1/16W 1.5K-JB	R74E	0100075M	CF. 1/8W 2.7K-JB (CY77/CY75)
R560	0700041M	CF. 1/16W 1.0K-JB	R74H	0100107M	CF. 1/8W 56K-JB (NOT CY77/CY75)
R561	0700034M	CF. 1/16W 330-JB	R74H	0100109M	CF. 1/8W 68K-JB (CY77/CY75)
R562	0700034M	CF. 1/16W 330-JB	R740	0110121S	MF. 100-JS
R563	0700034M	CF. 1/16W 330-JB	R745	0100091M	CF. 1/8W 12K-JB
R565	0700041M	CF. 1/16W 1.0K-JB	R746	0700041M	CF. 1/16W 1.0K-JB (NOT CZ77/CY75)
R566	0700041M	CF. 1/16W 1.0K-JB	R746	0700053M	CF. 1/16W 8.2K-JB (CY77/CY75)

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R749	0700045M	CF. 1/16W 2.2K-JB	RA80	0700041M	CF. 1/16W 1.0K-JB (NOT CY77/CY75)
R75A	0700034M	CF. 1/16W 330-JB	RA81	0700041M	CF. 1/16W 1.0K-JB (NOT CY77/CY75)
R75C	0700063M	CF. 1/16W 47K-JB	RA82	0100041M	CF. 1/8W 100-JB (NOT CY77/CY75)
R75E	0700045M	CF. 1/16W 2.2K-JB	RM04	0100065M	CF. 1/8W 1K-JB (NOT CY77/CY75)
R75G	0100029M	CF. 1/8W 33-JB	RM05	0100065M	CF. 1/8W 1K-JB (NOT CY77/CY75)
R75K	0700034M	CF. 1/16W 330-JB	RM06	0700041M	CF. 1/16W 1.0K-JB (NOT CY77/CY75)
R750	0700061M	CF. 1/16W 33K-JB	RM07	0700043M	CF. 1/16W 1.5K-JB\ (NOT CY77/CY75)
R751	0100059M	CF. 1/8W 560-JB	RM08	0700046M	CF. 1/16W 2.7K-JB (NOT CY77/CY75)
R752	0100089M	CF. 1/8W 10K-JB	RM09	0700049M	CF. 1/16W 4.7K-JB (NOT CY77/CY75)
R755	0700029M	CF. 1/16W 150-JB	RM15	0700054M	CF. 1/16W 10K-JB (NOT CY77/CY75)
R756	0700034M	CF. 1/16W 330-JB	RV01	0700067M	CF. 1/16W 100K-JB (NOT CZ73)
R757	0100029M	CF. 1/8W 33-JB (CZ77/CY77)	RV02	0700059M	CF. 1/16W 27K-JB (NOT CZ73)
R76C	0700041M	CF. 1/16W 1.0K-JB	RV04	0700035M	CF. 1/16W 390-JB (NOT CZ73)
R76D	0700041M	CF. 1/16W 1.0K-JB	RV06	0700034M	CF. 1/16W 330-JB (NOT CZ73)
R76F	0114147M	CF. 1/4W 470-JB	RV07	0700057M	CF. 1/16W 18K-JB (NOT CZ73)
R76G	0700054M	CF. 1/16W 10K-JB	RV08	0700067M	CF. 1/16W 100K-JB (NOT CZ73)
R76H	0700041M	CF. 1/16W 1.0K-JB	RV09	0700033M	CF. 1/16W 270-JB (NOT CZ73)
R763	0110259S	MF. 3.9K-JS	RV10	0700033M	CF. 1/16W 270-JB (NOT CZ73)
R764	0114049M	CF. 1/4W 22-JB	RV11	0700042M	CF. 1/16W 1.2K-JB (NOT CZ73)
R765	0100071M	CF. 1/8W 1.8K-JB	RV12	0700045M	CF. 1/16W 2.2K-JB (NOT CZ73)
R766	0100101M	CF. 1/8W 33K-JB	RV13	0700058M	CF. 1/16W 22K-JB (NOT CZ73)
R767	0700053M	CF. 1/16W 8.2K-JB	RV16	0700036M	CF. 1/16W 470-JB (NOT CZ73)
R768	0700053M	CF. 1/16W 8.2K-JB	RV17	0700046M	CF. 1/16W 2.7K-JB (NOT CZ73)
R769	0700058M	CF. 1/16W 22K-JB	RV19	0700028M	CF. 1/16W 120-JB (NOT CZ73)
R770	0700058M	CF. 1/16W 22K-JB	RV20	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
R773	0110123S	MF. 120-JS	RV21	0113701M	CF. SRD1/2P-B 10-J (NOT CZ73)
R781	0100073M	CF. 1/8W 2.2K-JB	RV22	0100039M	CF. 1/8W 82-JB (NOT CZ73)
R786	0110241S	MF. 680-JS	RV23	0100039M	CF. 1/8W 82-JB (NOT CZ73)
R787	0110219S	MF. 82-JS	RV24	0700043M	CF. 1/16W 1.5K-JB (NOT CZ73)
R794	0110257S	MF. 3.3K-JS	RV25	0100069M	CF. 1/8W 1.5K-JB (NOT CZ73)
R795	0114049M	CF. 1/4W 22-JB	RV26	0114143M	CF. 1/4W 330-JB (NOT CZ73)
R798	0113760M	CF. 1/2W 2.7K-JB	RV27	0114221M	CF. 1/4 PB 68K-J (NOT CZ73)
R932	0700051M	CF. 1/16W 5.6K-JB	RV28	0114221M	CF. 1/4 PB 68K-J (NOT CZ73)
R932A	0700051M	CF. 1/16W 5.6K-JB	RV29	0100053M	CF. 1/8W 330-JB (NOT CZ73)
R942	0110221S	MF. 100-JS	RV30	0700055M	CF. 1/16W 12K-JB (NOT CZ73)
R942A	0110221S	MF. 100-JS	RV31	0113716M	CF. SRD1/2P-B 43-J (NOT CZ73)
			RV32	0113716M	CF. SRD1/2P-B 43-J (NOT CZ73)
		SUB PWB RESISTORS	RV33	0113686M	CF. 1/2W 2.7-J (NOT CZ73)
			RV34	0113686M	CF. 1/2W 2.7-J (NOT CZ73)
RA71	0100041M	CF. 1/8W 100-JB (NOT CY77/CY75)	RV35	0110229S	MF. 220-JS (NOT CZ73)
RA72	0700041M	CF. 1/16W 1.0K-JB (NOT CY77/CY75)	RV36	0110135S	MF. 390-JS (NOT CZ73)
RA73	0700041M	CF. 1/16W 1.0K-JB (NOT CY77/CY75)	RV37	0110132S	MF. 300-JS (NOT CZ73)
RA74	0700064M	CF. 1/16W 56K-JB (NOT CY77/CY75)	RV38	0700049M	CF. 1/16W 4.7K-JB (NOT CZ73)
RA75	0700045M	CF. 1/16W 2.2K-JB (NOT CY77/CY75)	RV39	0700051M	CF. 1/16W 5.6K-JB (NOT CZ73)
RA76	0100123M	CF. 1/8W 270K-JB (NOT CY77/CY75)	RV40	0700061M	CF. 1/16W 33K-JB (NOT CZ73)
RA77	0700047M	CF. 1/16W 3.3K-JB (NOT CY77/CY75)	RV41	0700036M	CF. 1/16W 470-JB (NOT CZ73)
RA78	0700064M	CF. 1/16W 56K-JB (NOT CY77/CY75)	RV42	0700043M	CF. 1/16W 1.5K-JB (NOT CZ73)
RA79	0100123M	CF. 1/8W 270K-JB (NOT CY77/CY75)	RV43	0700035M	CF. 1/16W 390-JB (NOT CZ73)

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SYMBOL NO.	PART NO.	PART DESCRIPTION
RV44	0700043M	CF. 1/16W 1.5K-JB (NOT CZ73)
RV45	0700067M	CF. 1/16W 100K-JB (NOT CZ73)
RV46	0700067M	CF. 1/16W 100K-JB (NOT CZ73)
RV47	0700039M	CF. 1/16W 820-JB (NOT CZ73)
RV48	0700041M	CF. 1/16W 1.0K-JB (NOT CZ73)
RV50	0700035M	CF. 1/16W 390-JB (NOT CZ73)
RV51	0700056M	CF. 1/16W 15K-JB (NOT CZ73)
RV53	0700027M	CF. 1/16W 100-JB (NOT CZ73)
RV54	0100063M	CF. 1/8W 820-JB (NOT CZ73)
RY70	0187038M	CF. 1/16W 75-J (CY77/CY75)
R644	0700041M	CF. 1/16W 1.0K-JB
R645	0700041M	CF. 1/16W 1.0K-JB
R646	0700041M	CF. 1/16W 1.0K-JB
R647	0700044M	CF. 1/16W 1.8K-JB
R648	0114143M	CF. 1/4W 330-JB
R649	0100056M	CF. 1/8W 430-JB
R651	0700065M	CF. 1/16W 68K-JB (CZ77/CZ75)
R652	0700057M	CF. 1/16W 18K-JB (CZ77/CZ75)
R653	0700059M	CF. 1/16W 27K-JB
R654	0700057M	CF. 1/16W 18K-JB
R655	0700059M	CF. 1/16W 27K-JB (CZ77/CZ75)
R655	0700063M	CF. 1/16W 47K-JB (NOTCZ77/CZ75)
R656	0700059M	CF. 1/16W 27K-JB (CZ77/CZ75)
R656	0700061M	CF. 1/16W 33K-JB (NOT CZ77/CZ75)
R657	0100117M	CF. 1/8W 150K-JB (NOT CZ73)
R658	0700055M	CF. 1/16W 12K-JB (CZ77/CZ75)
R658	0700058M	CF. 1/16W 22K-JB (NOT CZ77/CZ75)
R659	0100117M	CF. 1/8W 150K-JB
R664	0700063M	CF. 1/16W 47K-JB
R665	0700064M	CF. 1/16W 56K-JB
R668	2340371	TH. 112301-9+D937
R669	0700067M	CF. 1/16W 100K-JB
R670	0700046M	CF. 1/16W 2.7K-JB
R671	0700065M	CF. 1/16W 68K-JB
R672	0700064M	CF. 1/16W 56K-JB
R673	0100133M	CF. 1/8W 680K-JB
R674	0700045M	CF. 1/16W 2.2K-JB (CZ77/CZ75)
R674	0700049M	CF. 1/16W 4.7K-JB (NOT CZ77/CZ75)
R743	0700056M	CF. 1/16W 15K-JB
R750	0100073M	CF. 1/8W 2.2K-JB
R751	0700065M	CF. 1/16W 68K-JB
R752	0700058M	CF. 1/16W 22K-JB
R754	0100075M	CF. 1/8W 2.7K-JB
R755	AW00097	TRIMMER RESISTOR
R756	0700057M	CF. 1/16W 18K-JB
R757	0700064M	CF. 1/16W 56K-JB
R758	0700041M	CF. 1/16W 1.0K-JB
R758	0700051M	CF. 1/16W 5.6K-JB
R759	0700054M	CF. 1/16W 10K-JB
R760	0700066M	CF. 1/16W 82K-JB
R767	0700044M	CF. 1/16W 1.8K-JB
R777	0150279	RV. 100K-B(V)
R777	0161361	CF. 100K
R778	0700038M	CF. 1/16W 680-JB
R779	0700027M	CF. 1/16W 100-JB
R780	0700051M	CF. 1/16W 5.6K-JB
R801	0100053M	CF. 1/8W 330-JB
R802	0110257S	MF. 3.3K-JS
R803	0110257S	MF. 3.3K-JS
R804	0110257S	MF. 3.3K-JS
R805	0179600M	MF. 10M-J TAPE (CZ77/CZ75)
R806	0179600M	MF. 10M-J TAPE (CZ77/CZ75)
R851	0110257S	MF. 3.3K-JS
R852	0110257S	MF. 3.3K-JS
R853	0110257S	MF. 3.3K-JS
R854	0113750M	CF. 1/2W 1K-JB
R855	0113750M	CF. 1/2W 1K-JB
R856	0113750M	CF. 1/2W 1K-JB
R857	0100053M	CF. 1/8W 330-JB
R858	0100053M	CF. 1/8W 330-JB
R861	0700031M	CF. 1/16W 180-JB
R869	0700031M	CF. 1/16W 180-JB
R871	0700031M	CF. 1/16W 180-JB
R889	0114131M	CF. 1/4W 100-JB
R890	0114131M	CF. 1/4W 100-JB
R891	0114131M	CF. 1/4W 100-JB
R893	0100073M	CF. 1/8W 2.2K-JB
R896	0700041M	CF. 1/16W 1.0K-JB
R897	0700041M	CF. 1/16W 1.0K-JB
R898	0700041M	CF. 1/16W 1.0K-JB
R899	0700027M	CF. 1/16W 100-JB
R9A1	0113774M	CF. SRD1/2P-B 10K-J
R9A2	0113774M	CF. SRD1/2P-B 10K-J
R9A3	0100073M	CF. 1/8W 2.2K-JB
R9A4	0110281S	MF. 33K-JS
R9A5	0700054M	CF. 1/16W 10K-JB
⚠ R902	0144151	WW. 33-J
⚠ R902	2341281	TH 3R0Q
R904	0147060	WW. 2W 33-K
R905A	0113774M	CF. SRD1/2P-B 10K-J
R905B	0113774M	CF. SRD1/2P-B 10K-J
R906	0147809	WW. 1.2-J 15W
R907	0700054M	CF. 1/16W 10K-JB
R910	0114049M	CF. 1/4W 22-JB
R916A	0119688	MF. 0.22-J
R916B	0119688	MF. 0.22-J

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SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R924	0114179M	CF. SRD 1/4 PF 5.6K-J			**SUB PWB SWITCHES/RELAYS**
R925	0114165M	CF. SRD 1/4 PF 1.5K-J			
R926	0114165M	CF. SRD 1/4 PF 1.5K-J	SM01	2634621	SWITCH BLOCK VR (NOT CY77/CY75)
R927	0114173M	CF. SRD1/4PB 3300-J	SM02	2632851	5KEY TACT SWITCH (NOT CY77/CY75)
R928	0114151M	CF. SRD 1/4 P 680-J	SM03	2634621	SWITCH BLOCK VR (NOT CY77/CY75)
R930	0100113M	CF. 1/8W 100K-JB	⚠ S901	FJ00071	AC POWER RELAY ALK3213
R931	0119688	MF. 0.22-J	S902	FJ00071	AC POWER RELAY ALK3213
R932	0700043M	CF. 1/16W 1.5K-JB			
R933	0700046M	CF. 1/16W 2.7K-JB			
R94A	0113793M	CF. SRD1/2P-B 56K-J			**MAIN PWB TRANSFORMERS**
R945	0700041M	CF. 1/16W 1.0K-JB			
R946	0100091M	CF. 1/8W 12K-JB	⚠ T701	BW00661	H-DRIVE TRANS.
R947	0700027M	CF. 1/16W 100-JB	⚠ T702	2437094	FBT-C87LUI
R948	0119690	MF. 0.27-J			
R949	0700043M	CF. 1/16W 1.5K-JB			
R952	0119690	MF. 0.27-J			**SUB PWB TRANSFORMERS**
R953	0113758M	CF. 1/2W 2.2K-JB	⚠ T901	BT00741	POWER TRANSFORMER
R954	0700043M	CF. 1/16W 1.5K-JB			
R955	0114143M	CF. 1/4W 330-JB			**MAIN PWB MODULES**
R956	0114049M	CF. 1/4W 22-JB			
R957	0700045M	CF. 1/16W 2.2K-JB	U001	CZ00501U	ANALOG MONOLITHIC IC (PIC-21043SR)
R958	0113744M	CF. SRD1/2P-B 560-J			(CY77/CY75)
R959	0700054M	CF. 1/16W 10K-JB	U101	HC00321	ENG26509G (NOT CZ73)
R960	0700052M	CF. 1/16W 6.8K-JB	U101A	HC00322	ENG26510G (CZ73)
R961	0700049M	CF. 1/16W 4.7K-JB	⚠ U102	HJ00291	ENV56D24G3 (NOT CZ73)
R962	0700046M	CF. 1/16W 2.7K-JB			
⚠ R970	0119505S	MF. 1/4W 2.2-J			
R976	0700054M	CF. 1/16W 10K-JB			**MAIN PWB CRYSTAL/OSC.**
R977	0700027M	CF. 1/16W 100-JB			
R978	0700027M	CF. 1/16W 100-JB	X0A1	BP00771	OSXR032X121TA252E00
R979	0700041M	CF. 1/16W 1.0K-JB	X001	2168931	CRYSTAL HC-49/U-120MHZ
R982	0700045M	CF. 1/16W 2.2K-JB	X201	BP00791	F072ASL-B (NOT CZ73)
R984	0100071M	CF. 1/8W 1.8K-JB	X202	2143451	CERAMIC TRAP 4.5MHZ (NOT CZ73)
R985	0113770M	CF. 1/2P-B 6.8K-J	X301	CW00022	COMB FILTER (337KNT) (NOT CZ77/CY77)
R986	0110269S	MF. 10K-JS	X301	CW00172	HYBRID IC (HCF0213) (NOT CZ77/CY77)
R987	0700054M	CF. 1/16W 10K-JB	X501	2791505	CRYSTAL HC-491U 3.58MHZ
R988	0700054M	CF. 1/16W 10K-JB	X751	2168771	X'TAL CSB503F30
		MAIN PWB SWITCHES			**MAIN PWB MISCELLANEOUS PARTS**
S001	2632851	5KEY TACT SWITCH (CY77/CY75)			
S002	2634621	SWITCH BLOCK VR (CY77/CY75)	NO01	3443231	SHIELD PLATE M1C TC-30
S003	2634621	SWITCH BLOCK VR (CY77/CY75)	N403	3446862	VERTICAL HEAT SINK M1LXU
			N403A	4520881	M3*8 SCREW WITH WASHER
			N403B	8821234	NUT-3
			N601	3446864	V.HEAT SINK M3LXU
			N601A	4520881	M3*8 SCREW WITH WASHER

REPLACEMENT PARTS LIST

ODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing y of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver ough improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
N601B	8821234	NUT-3
N701	8821114	NUT,3
N701A	4243445	G51 INSULATION WASHER PL-11T
N701B	8711412	SCREW-3X12 PAN HEAD
N702	3445542	H.HEAT SINK HY09 A11DOP-H2
N702A	4514061	SCREW FLANGED 3*12
N702B	8821234	NUT-3
N702C	8813124	SPRING WASHER-3
N702D	4284311	2000 EARTH PIN
N702E	4159411	SCREW 3*8 KNURLED TAPPING SWRM
N752	3445563	HEAT SINK A3LXU
N752A	4520881	M3*8 SCREW WITH WASHER
N910	4107502	PWB METAL R (A1) TC-30
N912	4107512	A1LXU1 PWB METAL L TC-30
PCXA	2675593	15P PLUG PIN (CZ77/CY77)
PFV	2902265	PLUG PIN SUB MINI 6P (CY77/CY75)
PF1A	2902263	PLUG PIN SUB MINI 4P (NOT CY77/CY75)
PF1A	2902266	PLUG PIN SUB MINI 7P (CY77/CY75)
PF2A	2902263	PLUG PIN SUB MINI 4P (NOT CY77/CY75)
PIPA	ED00576	CP-TAC-L20X-A1
PM	2665272	4P PLUG PIN WITH BASE
PMH2 0	2902264	PLUG PIN SUB MINI 5P
PMH3	2902267	PLUG PIN SUB MINI 8P
PMS1	2661754	5P PLUG PIN WITH BASE
PSL	2902261	PLUGPIN SUB MINI 2P
PSR	2902262	PLUG PIN SUB MINI 3P
PSRA	ED00566	CP-TAC-L10X-A1 (CZ77/CY77)
P65A	ED00562	CP-TAC-L05X-A1
P66A	ED00561	CP-TAC-L04X-A1
Z399	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW
Z403	9414017	SILICONE COMPOUND(G-746)
Z601	9414017	SILICONE COMPOUND(G-746)
Z703	9413926	SILICON RUBBER
Z706	9414017	SILICONE COMPOUND(G-746)
Z752	9414017	SILICONE COMPOUND(G-746)
ZD710	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW
ZR73H	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW
Z0K6	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW (CZ77/CY77)
Z00A	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW (CZ77/CY77)
Z00G	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW
Z00J	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW
Z00K	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW (CZ77/CY77)
Z054	9485158	HOT MELT (AX-1503C)
Z09M	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW
Z09R	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW (CZ77/CY77)
		SUB PWB MISCELLANEOUS PARTS
ND901	3446852	HEAT SINK D TYPE BLACK
ND934	4348493	CPT HEAT SINK A2LXU AL
NE901	3772201	AC CORD HOLDER NYLON
NI901	MD03121	POW.HEAT SINK M7LXU
NI901A	4520883	3*12 SCREW WITH WASHER
NI901B	4159411	SCREW 3*8 KNURLED TAPPING SWRM
NI901C	4284311	2000 EARTH PIN
NQV09	3446473	HEATSINK H30 P10 (NOT CZ73)
NQV09A	4520883	3*12 SCREW WITH WASHER (NOT CZ73)
NQV10	3446473	HEATSINK H30 P10 (NOT CZ73)
NQV10A	4520883	3*12 SCREW WITH WASHER (NOT CZ73/CY75)
NQ851	4348493	CPT HEAT SINK A2LXU AL
NQ854	4348493	CPT HEAT SINK A2LXU AL
NQ857	4348493	CPT HEAT SINK A2LXU AL
NQ913	MA00891	VERTICAL HEAT SINK
NQ913A	4520881	M3*8 SCREW WITH WASHER
NQ914	3445563	HEAT SINK A3LXU
NQ914A	4520881	M3*8 SCREW WITH WASHER
NX901	2784342	CONDENSER COVER
N936	3446473	HEATSINK H30 P10
N936A	4520883	3*12 SCREW WITH WASHER
PAC1	2723091	PLUG CP-02BP5R0V-SD-53415
PAC2	2723091	PLUG CP-02BP5R0V-SD-53415
PF	2665271	3P PLUG PIN WITH BASE(CZ77/CZ75)
PFVB	2902265	PLUG PIN SUB MINI 6P (NOT CY77/CY75)
PF1B	2902266	PLUG PIN SUB MINI 7P (NOT CY77/CY75)
PF2B	2902263	PLUG PIN SUB MINI 4P (NOT CY77/CY75)
PM	2665272	4P PLUG PIN WITH BASE
PMH2 1	2902264	PLUG PIN SUB MINI 5P
PMH4	2902267	PLUG PIN SUB MINI 8P
PM	2665272	4P PLUG PIN WITH BASE
PMH2 1	2902264	PLUG PIN SUB MINI 5P
PMH4	2902267	PLUG PIN SUB MINI 8P
PMS2	2661754	5P PLUG PIN WITH BASE
PNS1	2661754	5P PLUG PIN WITH BASE
PVMC	2902261	PLUGPIN SUB MINI 2P (NOT CZ73)
PVM1	2902266	PLUG PIN SUB MINI 7P (NOT CZ73)
PW	2661753	4P PLUG PIN WITH BASE
PY1	2902265	PLUG PIN SUB MINI 6P
PY2	2902263	PLUG PIN SUB MINI 4P
P2	2661751	2P PLUG PIN WITH BASE
P31	2661751	2P PLUG PIN WITH BASE

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION
P55B	ED00502	CP-TAC-L05P-A1
P56B	ED00501	CP-TAC-L04P-A1
P901	2782611	CENTER PIN
P902	2782611	CENTER PIN
X901	AJ00332	ENC221D-14A
ZB1	9414017	SILICONE COMPOUND(G-746)
ZB2	9414017	SILICONE COMPOUND(G-746)
ZN901	9451115	UL CSA TUBE NO.0
ZX901	9449567	TAPE-ADHESIVE W9 NITTO#223S(B) PVC
Z901	9414017	SILICONE COMPOUND(G-746)
Z902	9485158	HOT MELT (AX-1503C)
Z910	9451104	VARNISH CLOTH TUBE 0.8X1.8 YELLOW
		FINAL/CABINET ASSEMBLY PARTS (36 INCHS)
#100	QD04561	36UX FRAME SUBASSEMBLY
#101	QD04562	36FX/CX FRAME SUBASSEMBLY
#110	QD03491	FRAME 36V
#115	3760031	SMALL PIECE (S-2) FOR CABINET PS
#120	PH02512	DOOR
#125	3875771	LATCH 4T02 NYLON
#130	PC01191	BUTTON 36UX 52B
#135	8781642	SCREW 4*12 TAPPING
#140	PH02542	R/C LENS
#145	8781642	SCREW 4*12 TAPPING
#150	PH02532	INDOOR PLATE
#160	3487425	HITACHI BADGE
#200	4286588	PVC WASHER 20 T2.0 PVC
#205	4518378	6X35 TAP. SCREW WITH WASHER .STEEL
#220	8781642	SCREW 4*12 TAPPING
#250	4515482	SCREW-4X16 TAP. WITH WASHER STEEL
#251	4515482	SCREW-4X16 TAP. WITH WASHER STEEL
#300	QD01571	BACK COVER
#305	8781646	SCREW 4 X 16 TAPPING
#310	3727972	POWER CORD HANGER
#315	4778201	LABEL BASE PVC (USA MODELS)
#320	4778202	LABEL BASE PVC (CANADA MODELS)
EAC	2976985	CONNECTOR CO-02C-C7R5-102LOCK
EFV	2973797S	6J CONNECTOR L=430
EF1A	EF01502	7J EH CONNECTOR 301
EF2A	EF06131	(ONLY 36 INCHS MODELS)
EMH2	2973768S	5J CONNECTOR L=470
EMH3	2973867S	8J CONNECTOR L=1000
EMS1	EF04012	CO-05C-C5R0-541
N101	3705232	ANODE CLAMPER 94V0 (101) (NOT 36FX USA MODEL)
N102	3763751	SK BINDER (NOT 36FX USA)
N103	3763751	SK BINDER (NOT 36FX USA)
N104	3785502	V LOCK 11.5 (NOT 36FX USA)
N105	3785502	V LOCK 11.5 (NOT 36FX USA)
N106	3785502	V LOCK 11.5 (NOT 36FX USA)
N107	3785502	V LOCK 11.5 (NOT 36FX USA)
N108	3785511	V LOCK 16 (NOT 36FX USA)
N109	3785511	V LOCK 16 (NOT 36FX USA)
N110	3785511	V LOCK 16 (NOT 36FX USA)
N111	3785511	V LOCK 16 (NOT 36FX USA)
N112	3785502	V LOCK 11.5 (NOT 36FX USA)
N113	3785502	V LOCK 11.5 (NOT 36FX USA)
N114	3785502	V LOCK 11.5 (NOT 36FX USA)
N115	3785511	V LOCK 16 (NOT 36FX USA)
N117	3785511	V LOCK 16 (NOT 36FX USA)
		FINAL/CABINET ASSEMBLY PARTS (32 INCHS)
#100	QD03057	FRAME SUBASSEMBLY 32UX51B
#101	QD03056	FRAME SUBASSEMBLY 32FX41B
#110	QD00265	FRAME
#115	3760031	SMALL PIECE (S-2) FOR CABINET PS
#120	PH03841	DOOR
#125	3875771	LATCH 4T02 NYLON
#130	PC00345	BUTTONS
#135	8781642	SCREW 4*12 TAPPING
#140	H310885	R/C LENS
#145	8781642	SCREW 4*12 TAPPING
#150	PH00911	INDOOR PLATE
#160	3487425	HITACHI BADGE
#170	H311174	CPT BRACKET (R)
#171	H311173	CPT BRACKET (L)
#175	4520771	HEXAGON HEAD TAPPING SCREW 4*18
#200	4286581	PVC WASHER 2.0T
#205	4518378	6X35 TAP. SCREW WITH WASHER .STEEL
#220	8781642	SCREW 4*12 TAPPING
#255	8781646	SCREW 4 X 16 TAPPING
#300	3164049	BACKCOVER 32V
#305	4520771	HEXAGON HEAD TAPPING SCREW 4*18
#310	3727972	POWER CORD HANGER
#315	4520771	HEXAGON HEAD TAPPING SCREW 4*18
#700	H461171	PATENT AND TELESONICS LABEL
#710	4693491	CANADA COVER LABEL CCT (CANADA MODELS)
#900	H920182	VELCRO
#905	H390047	HIMERON SHEET
#910	8441429	HIMERON SHEET(I) HIMERON
#915	8441428	HIMERON SHEET(H) HIMERON

REPLACEMENT PARTS LIST

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SYMBOL NO.	PART NO.	PART DESCRIPTION
920	8440444	SP HIMERON C29-BV20
AC	2976985	CONNECTOR CO-02C-C7R5-102LOCK
MH2	2973768S	5J CONNECTOR L=470
MH3	2973864S	CON-SEH08C-C1007A751
MS1	EF04012	CO-05C-C5R0-541
101	3705232	ANODE CLAMPER 94V0 (101)
102	3763751	SK BINDER (NOT 32FX USA)
103	3763751	SK BINDER (NOT 32FX USA)
N104	3785502	V LOCK 11.5 (NOT 32FX USA)
N105	3785502	V LOCK 11.5 (NOT 32FX USA)
N106	3785502	V LOCK 11.5 (NOT 32FX USA)
N107	3785502	V LOCK 11.5 (NOT 32FX USA)
N108	3785511	V LOCK 16 (NOT 32FX USA)
N109	3785511	V LOCK 16 (NOT 32FX USA)
N110	3785511	V LOCK 16 (NOT 32FX USA)
N113	3785502	V LOCK 11.5 (NOT 32FX USA)
N114	3785502	V LOCK 11.5 (NOT 32FX USA)
N115	3785511	V LOCK 16 (NOT 32FX USA)
N117	3785511	V LOCK 16 (NOT 32FX USA)
N401A	H462121	LABEL BLANK 160-162
N401B	HW91575	PRINT SPEC- WARNING LABEL
		PACKING ASSSEMBLY PARTS (36 INCHS MODELS)
#10	H361091	CARTON BOX
#20	SP01792	TOP CUSHION
#30	SP01803	BOTTOM CUSHION (36UX MODEL)
#50	H360762	LAMINATED POLY FOAM BAG
#60A	H462242	LABEL BLANK MODEL NAME
#70	H461791	TAG AND BAR CODE
#70A	HW91519	PRINT SPEC-SHIP TAG
		PACKING ASSSEMBLY PARTS (32 INCHS MODELS)
#10	H361006	CARTON BOX
#20	H361021	TOP CUSHION
#30	H361033	BOTTOM CUSHION
#40	H360834	BOTTOM PAD
#41	H360843	BOTTOM PAD BLANK
#50	H360761	POLY BAG FOAM LAMINATED
#60A	H462241	LABEL BLANK MODEL NAME
#70	H461791	TAG AND BAR CODE
#70A	HW91519	PRINT SPEC-SHIP TAG

SYMBOL NO.	PART NO.	PART DESCRIPTION
		OWNER'S ASSEMBLY PARTS
E203	2784243	DRY BATTERY SUM-3 (G)
E301	HL00721	RML-CLU-431UI (UX,FX MODELS)
E301	HL00722	RML-CLU-432U (CX MODEL)
N201	QR20841	USA MODELS INST.BOOK
N201	QR20851	CANADA MODELS INST.BOOK
N205	3611879	POLYETHYLENE BAG
N209	H461901	HITACHI EXT. SVC CARD (USA MODELS)
N302	4712247	CUSTOMER REGISTRATION CARD (USA MODELS)
		CPT ASSEMBLY PARTS (36 INCHS)
EG	2663328	2J MINI-CONNECTOR WITH WIRE
EVM3	2976645	CONNECTOR CO-02C-N2R5-241 (NOT 36CX35B)
E602	2908402	CRT EARTH WIRE
E603	GX00131	CHEVRON FUNNEL MAGNET
JM	2665293	6P MINI CONN LEAD (36CX35B)
L970	2229023	DEGAUSSING COIL
N606	3330944	EARTH SPRING
N607A	3763751	SK BINDER
N613	4621186	CUSHION 2908 CR
V1	DE01421	PICTURE TUBE (NOT 36CX35B)
V1	DE01452	A90AFX15X01 NON VM (ONLY 36CX35B)
Z606	9436111	TAPE-ADHESIVE W50 NITTO#223S
Z608	9449506	SCOTCH TAPE N0.29 19mm
Z609	9449503	ADHESIVE TAPE (SCOTH N0.3 W=9)
Z610	9449553	TAPE-ADHESIVE W19 NITTO#223S (ONLY 36CX35B)
Z611	9449503	ADHESIVE TAPE (SCOTH N0.3 W=9)
		CPT ASSEMBLY PARTS (32 INCHS)
EVM	2979222	CONNECTOR
E601	BY00821	DY-32V 110 SVC
E602	2994511	CRT EARTH WIRE
E603	2771461	EDGE MAGNET
E604	2776541	VM MAGNET (C-C)
L905	2229022	DEGAUSSING COIL
N601	4615641	WEDGE

REPLACEMENT PARTS LIST

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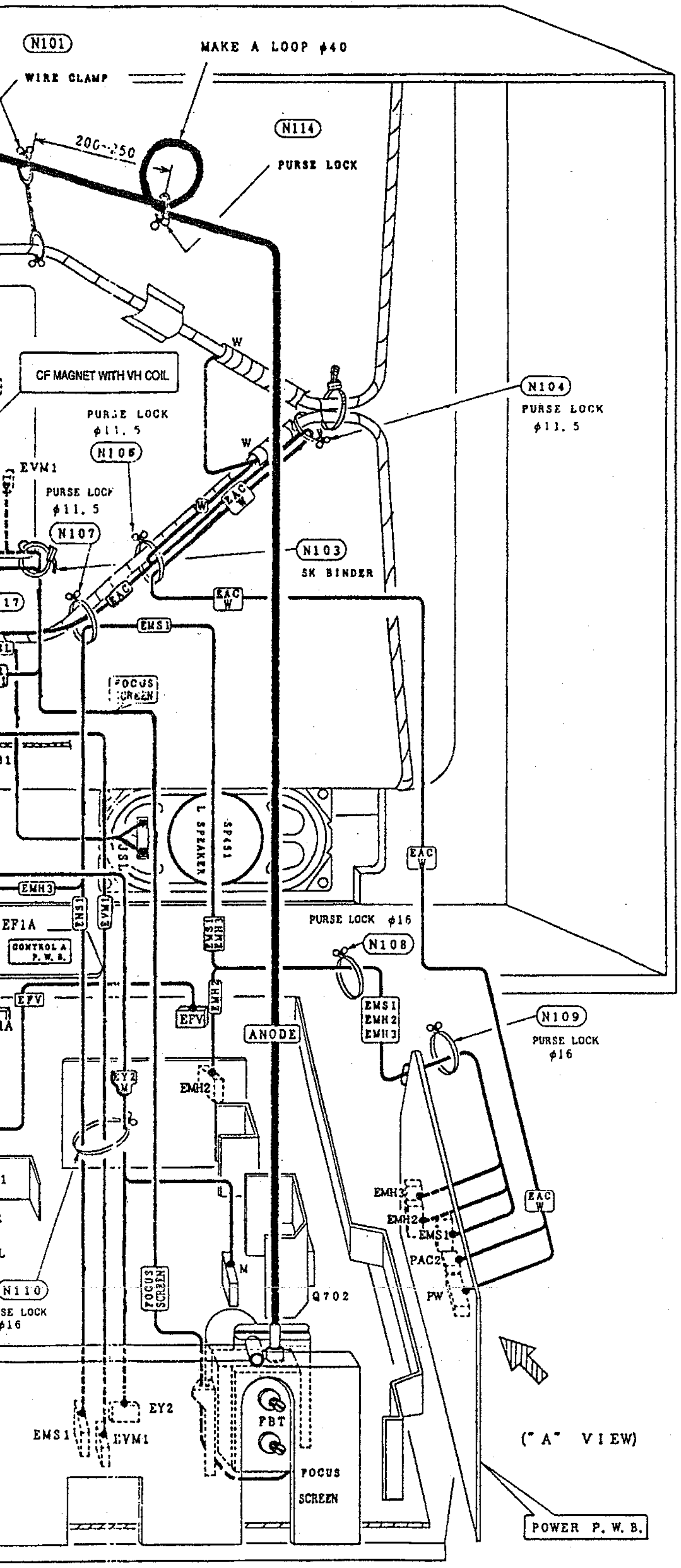
SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
N606	3330941	EARTH SPRING			
N607A	3763751	SK BINDER			
N608	3763752	SK BINDER 200 NYLON 66			
N611	2772211	MAG. PIECE			
N612	2956801	EARTH RING			
V1	DE01371	A80LJF30X(W)			
Z601	9449506	SCOTCH TAPE NO.29 19MM			
Z603	9473101	WHITE PAINT			
Z604	9553945	ADHESIVE TAPE PERMACEL P212			
Z606A	9436111	TAPE-ADHESIVE W50 NITTO#223S			
Z608	9449506	SCOTCH TAPE NO.29 19MM			
Z609	9449503	ADHESIVE TAPE (SCOTCH N0.3 W=9)			
		SPEAKERS ASSEMBLY PARTS			
JSL	2976647	2J EH CONNECTOR 701			
JSR	2976656	3J EH CONNECTOR (32 INCHS)			
JSR	2976657	3I EH CONNECTOR 861 (36")			
SP451	GK00262	SPEAKER 6X12D			
SP452	GK00262	SPEAKER 6X12D			
Z101	9449603	NITTOOH TAPE #747			
		ACCESSORYS ASSEMBLY			
#101	H461541	LABEL SHEET (A) (36 INCHS)			
#101A	H462101	LABEL BLANK 102-64 (32 INCHS)			
#101B	HW91583	PRINT SPEC CTV INST LABEL (32 INCHS)			

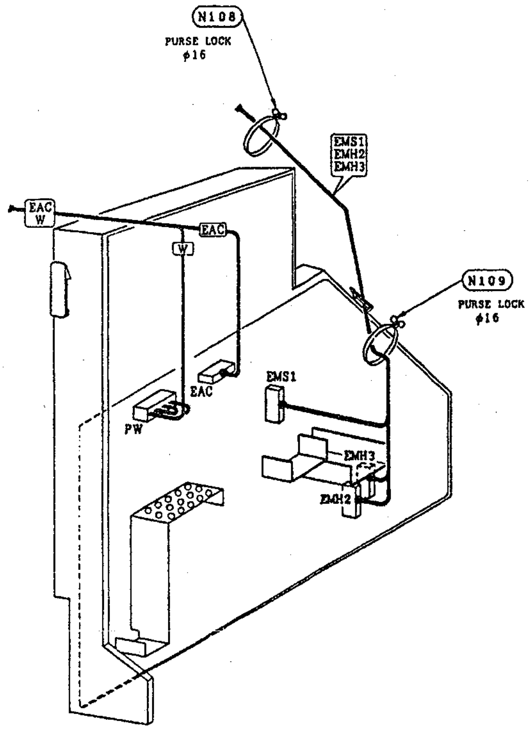
NOTES:

NOTES:

X42B

X42B FINAL ASSEMBLY

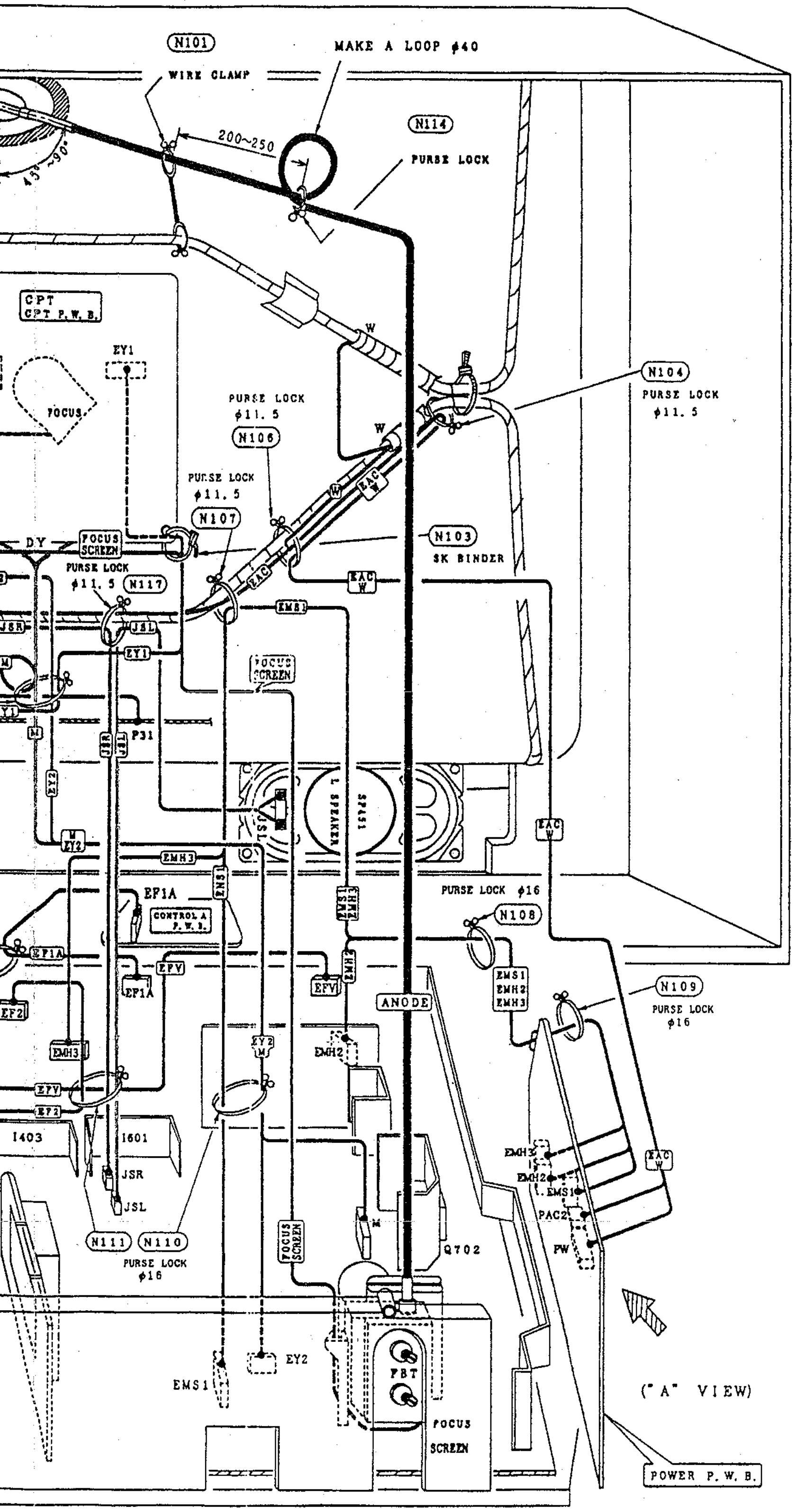

N101
WIRE CLAMP
MAKE A LOOP ϕ40
200~250
N114
PURSE LOCK
W
CF MAGNET WITH VH COIL
N104
PURSE LOCK
ϕ11.5
PURSE LOCK
ϕ11.5
N105
EVM1
PURSE LOCK
ϕ11.5
N107
EAC
W
N103
SK BINDER
EAC
W
EMS1
FOCUS
SCREEN
L SPEAKER
SP451
EAC
W
EMH3
EF1A
CONTROL A P.W.B.
PURSE LOCK ϕ16
N108
EMS1
EMH2
EMH3
N109
PURSE LOCK
ϕ16
EFV
EFV
ANODE
EY2
M
EMH2
EMH3
EMH2
EMS1
PAC2
PW
EAC
W
N110
PURSE LOCK
ϕ16
FOCUS
SCREEN
M
Q702
EY2
EMS1
EVM1
FBT
FOCUS
SCREEN
("A" VIEW)
POWER P. W. B.

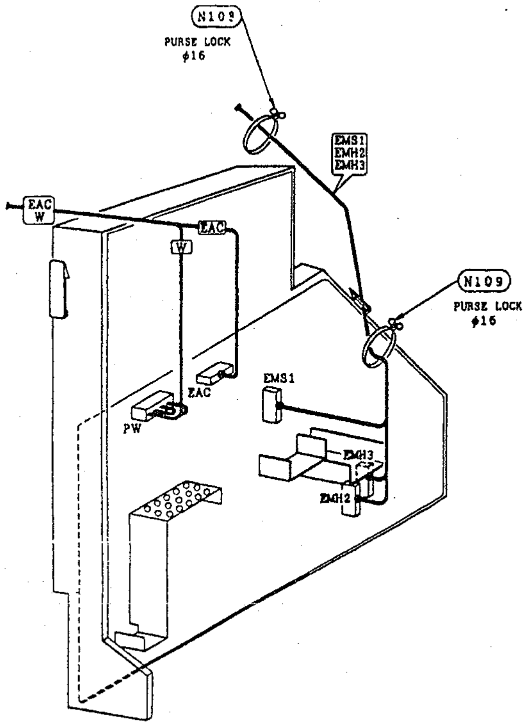

N108
PURSE LOCK
ϕ16
EMS1
EMH2
EMH3
EAC
W
EAC
W
N109
PURSE LOCK
ϕ16
EMS1
EAC
PW
EMH3
EMH2

"A" VIEW

36CX35B

OF 36XC35B FINAL ASSEMBLY

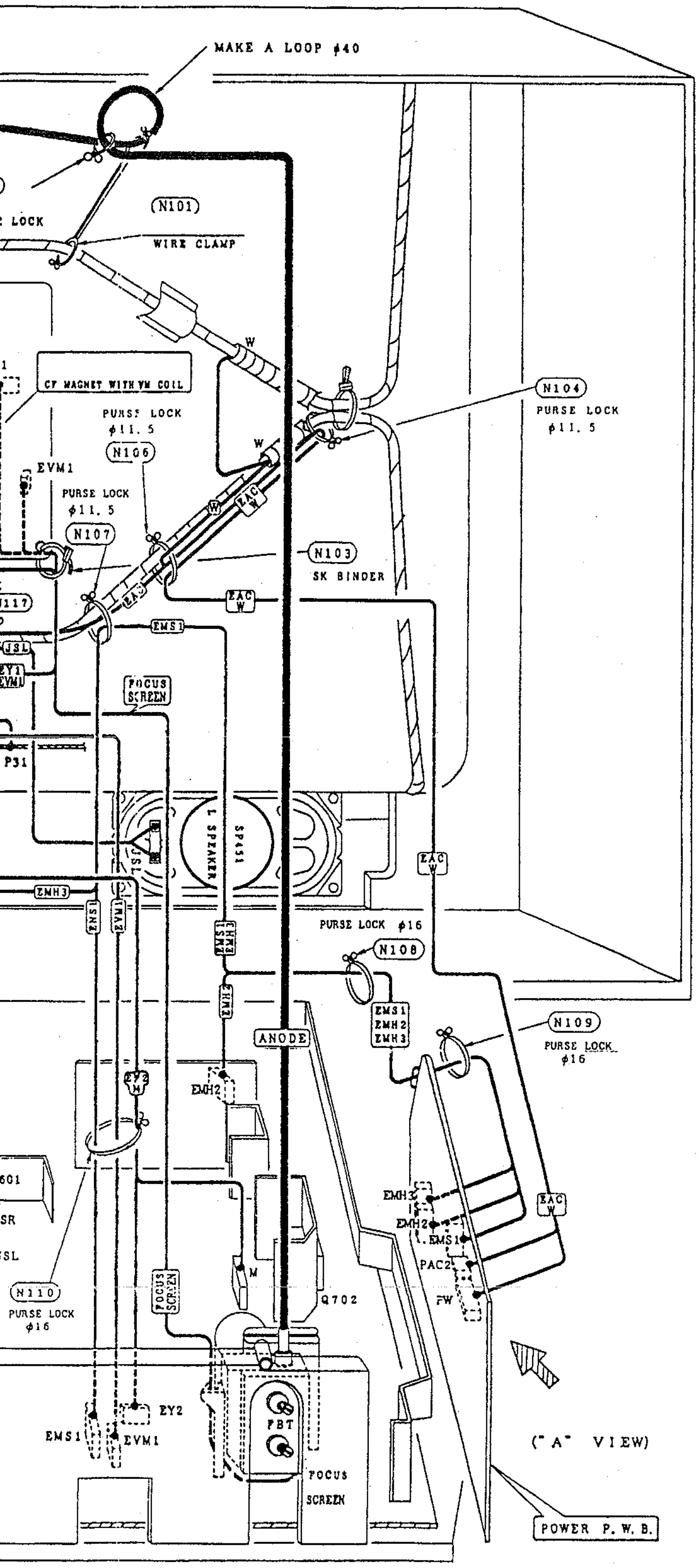

N101
WIRE CLAMP
MAKE A LOOP ϕ40
200~250
45°~90°
N114
PURSE LOCK
CPT
CPT P.W.B.
EY1
FOCUS
W
N104
PURSE LOCK
ϕ11.5
PURSE LOCK
ϕ11.5
N106
PURSE LOCK
ϕ11.5
N107
EAC W
N103
SK BINDER
DY
FOCUS SCREEN
PURSE LOCK
ϕ11.5
N117
EAC
EAC W
EMS1
JSR
JSL
EY1
FOCUS SCREEN
M
EY1
P31
EY2
JSR
JSL
L SPEAKER
SP431
JSL
M EY2
EMH3
EMS1
EAC W
EF1A
CONTROL A P.W.B.
EMS1 EMH3
PURSE LOCK ϕ16
N108
EF1A
EFV
EF1A
EFV
EMH3
EF2
EMS1 EMH2 EMH3
ANODE
N109
PURSE LOCK
ϕ16
EMH3
EY2 M
EMH2
EFV
EF2
I403
I601
JSR
JSL
EMH3
EMH2
EMS1
PAC2
PW
EAC W
M
N111
N110
PURSE LOCK
ϕ16
FOCUS SCREEN
Q702
FBT
EMS1
EY2
FOCUS
SCREEN
("A" VIEW)
POWER P.W.B.


N109
PURSE LOCK
ϕ16
EMS1
EMH2
EMH3
EAC W
EAC
W
N109
PURSE LOCK
ϕ16
EMS1
EAC
PW
EMH3
EMH2

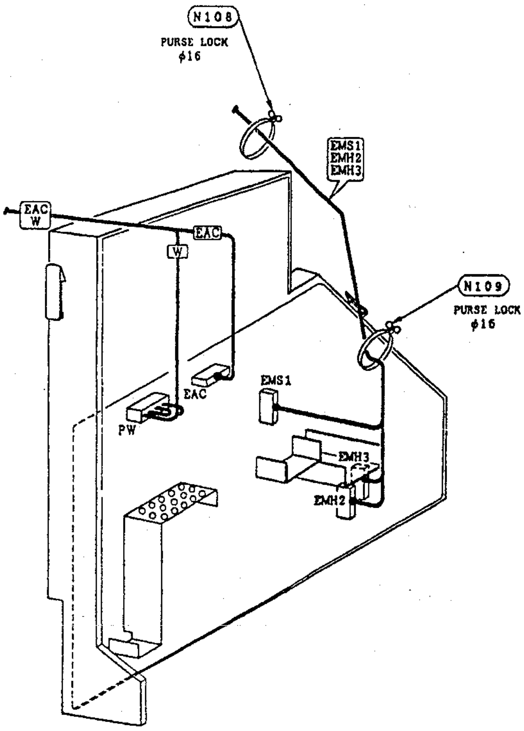
"A" VIEW

IB

B FINAL ASSEMBLY



MAKE A LOOP ϕ40
LOCK
N101
WIRE CLAMP
CY MAGNET WITH VM COIL
PURSE LOCK ϕ11.5
N106
EVM1
PURSE LOCK ϕ11.5
N107
N104
PURSE LOCK ϕ11.5
N103
SK BINDER
W
EAC W
117
EMS1
JSL
EY1 EVM1
FOCUS SCREEN
P31
L SPEAKER
SP451
EMH3
EMS1
EVM1
EAC W
PURSE LOCK ϕ16
N108
EMS1 EMH2 EMH3
N109
PURSE LOCK ϕ16
ANODE
EY2 M
EMH2
601
SR
SL
N110
PURSE LOCK ϕ16
FOCUS SCREEN
M
Q702
EMH3
EMH2
EMS1
PAC2
PW
EAC W
EMS1
EVM1
EY2
FBT
FOCUS SCREEN
("A" VIEW)
POWER P.W.B.

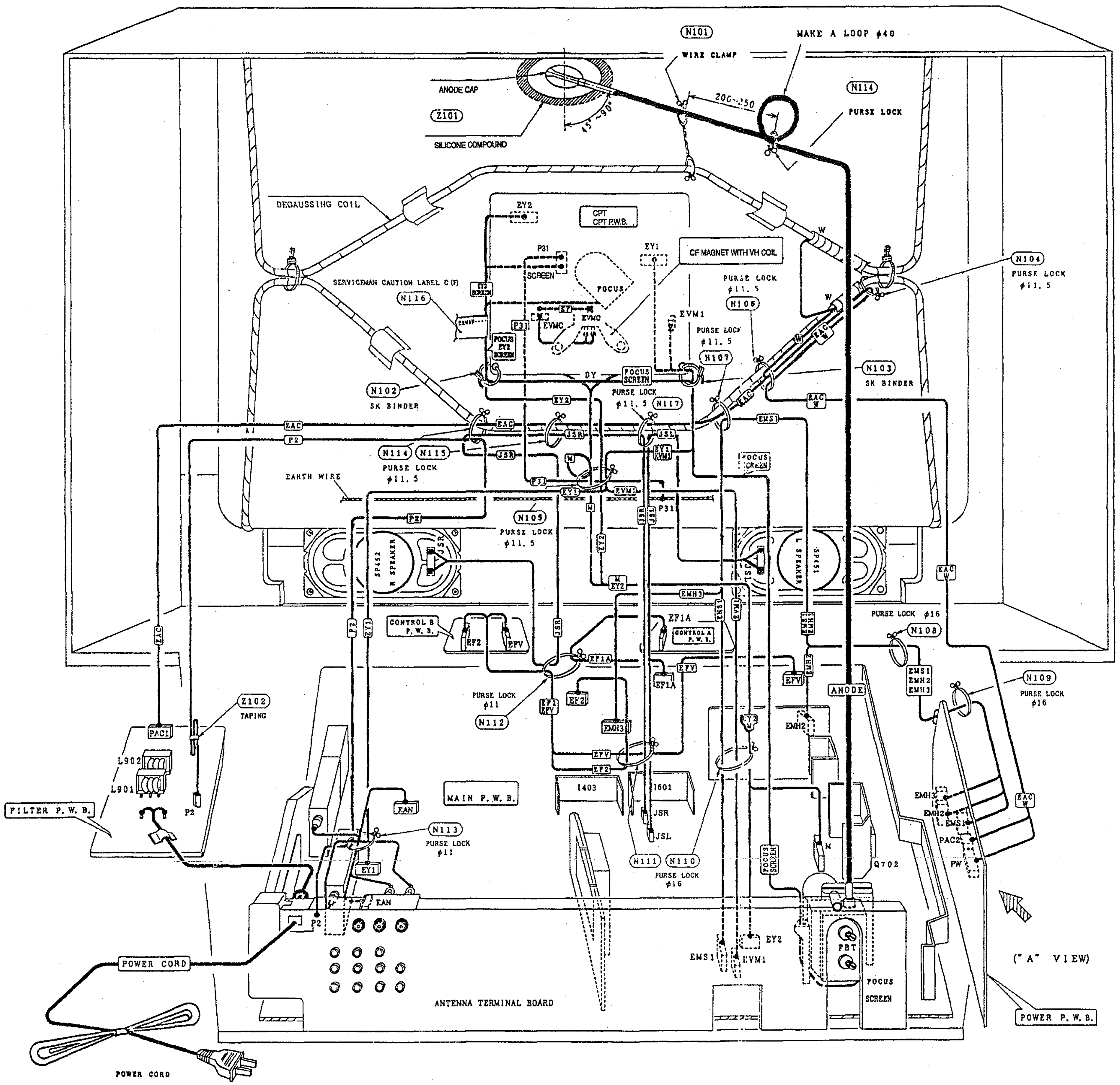


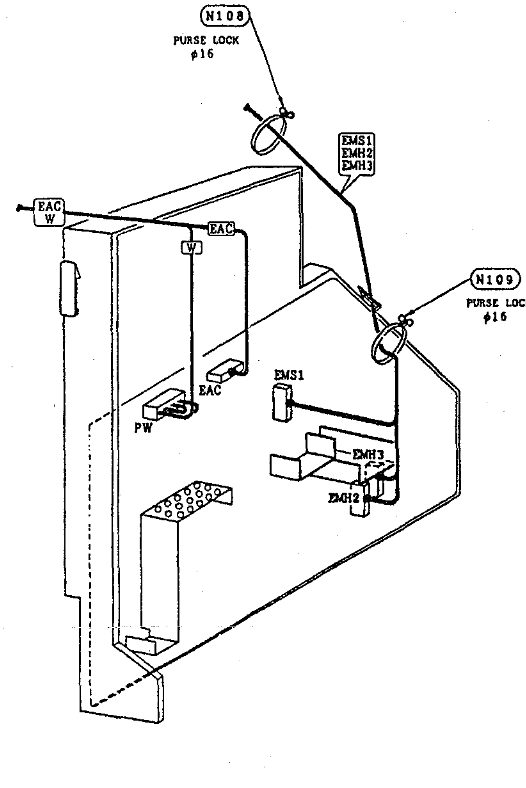
N108
PURSE LOCK ϕ16
EMS1 EMH2 EMH3
EAC W
EAC
W
N109
PURSE LOCK ϕ16
EMS1
EAC
PW
EMH3
EMH2

"A" VIEW

36UX52B/36FX42B

WIRING DRAWING OF 36UX52B/36FX42B FINAL ASSEMBLY

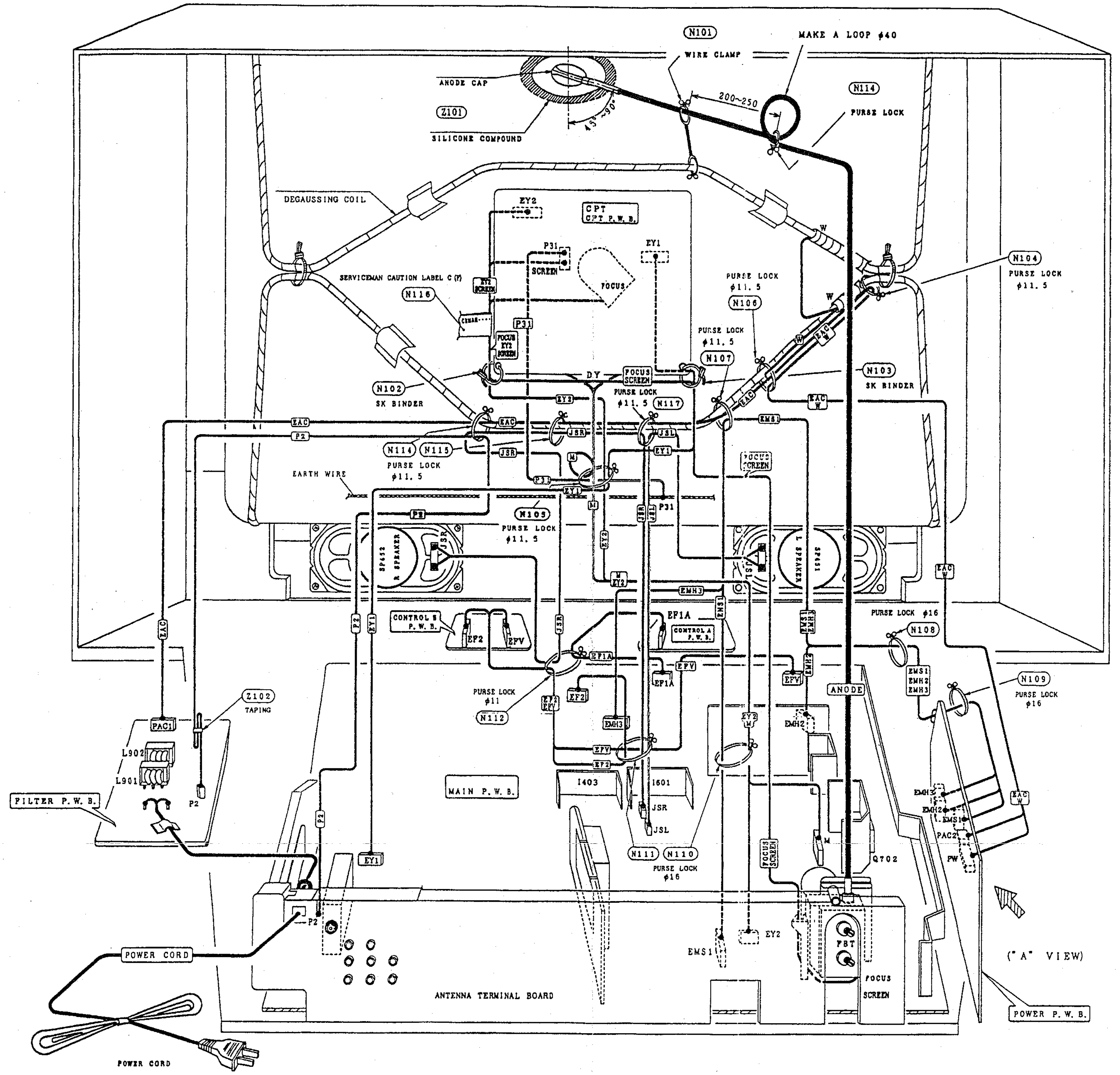

N101
MAKE A LOOP φ40
WIRE CLAMP
ANODE CAP
Z101
SILICONE COMPOUND
200~250
N114
PURSE LOCK
DEGAUSSING COIL
EY2
CPT
CPT P.W.B.
P31
EY1
CF MAGNET WITH VH COIL
SCREEN
FOCUS
SERVICEMAN CAUTION LABEL C(F)
N116
EVMC
EVM1
PURSE LOCK
φ11.5
N106
N107
N104
PURSE LOCK
φ11.5
N103
SK BINDER
N102
SK BINDER
DY
FOCUS SCREEN
N117
EAC
P2
EMS1
JSR
JSL
N114
N115
PURSE LOCK
φ11.5
EARTH WIRE
N105
PURSE LOCK
φ11.5
SP452
R SPEAKER
SP451
L SPEAKER
EMH3
EF1A
CONTROL B P.W.B.
CONTROL A P.W.B.
EF2
EFV
PURSE LOCK
φ11
N112
PURSE LOCK φ16
N108
EMS1
EMH2
EMH3
N109
PURSE LOCK
φ16
ANODE
Z102
TAPING
PAC1
L902
L901
FILTER P.W.B.
P2
MAIN P.W.B.
I403
I601
EAN
N113
PURSE LOCK
φ11
N111
N110
PURSE LOCK
φ16
Q702
FBT
FOCUS
SCREEN
EMS1
EVM1
EY2
EAC
EMH3
EMH2
EMS1
PAC2
PW
POWER CORD
ANTENNA TERMINAL BOARD
("A" VIEW)
POWER P.W.B.
POWER CORD

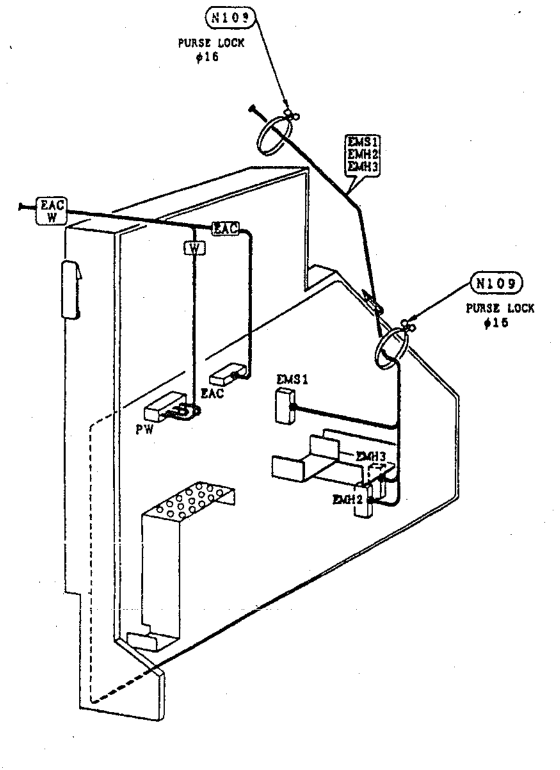

N108
PURSE LOCK
φ16
EMS1
EMH2
EMH3
EAC
W
EAC
W
N109
PURSE LOCK
φ16
PW
EAC
EMS1
EMH3
EMH2

"A" VIEW

36CX35B

WIRING DIAGRAM OF 36XC35B FINAL ASSEMBLY

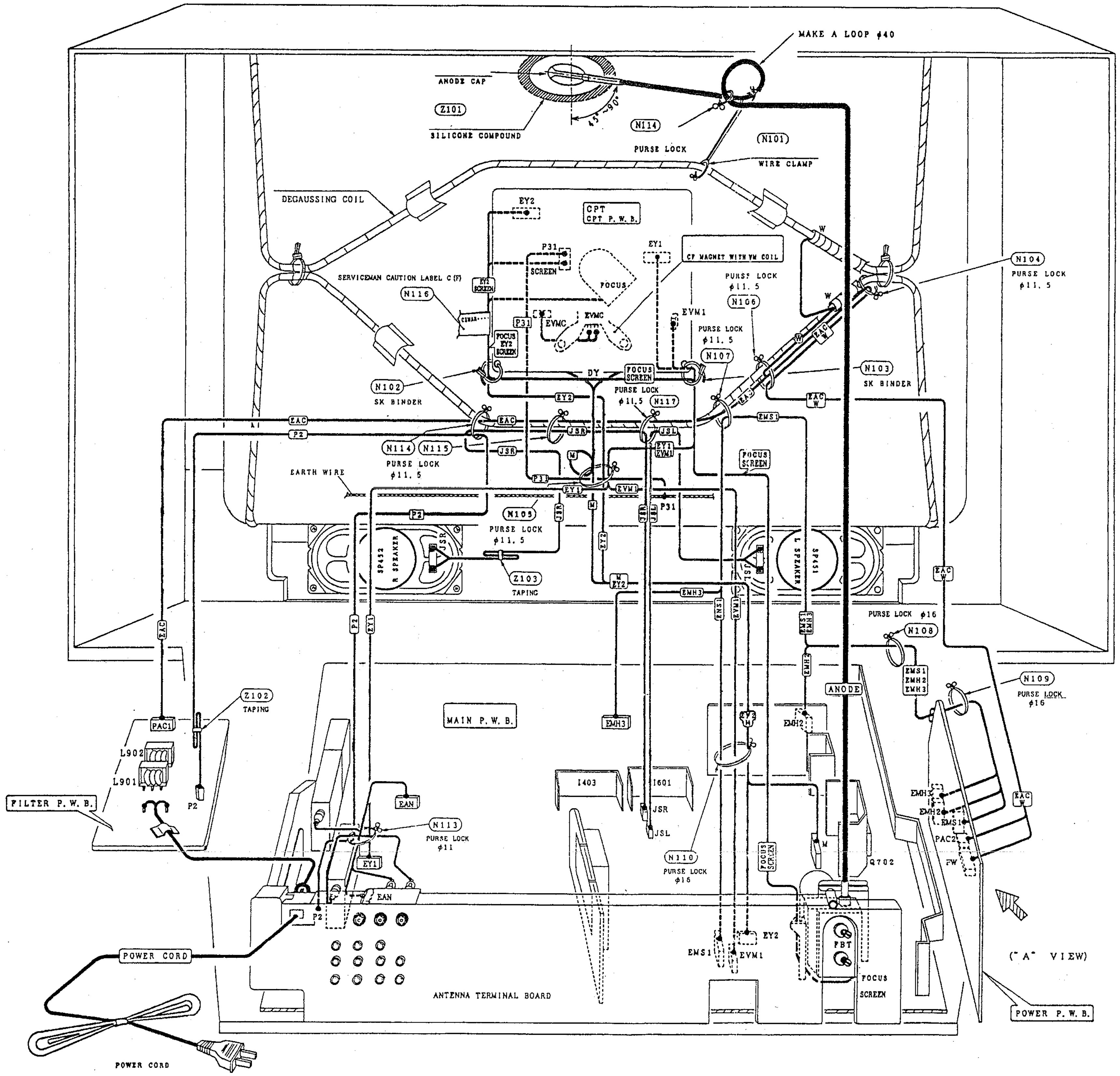

N101
WIRE CLAMP
MAKE A LOOP ϕ40
ANODE CAP
Z101
SILICONE COMPOUND
45°~90°
200~250
N114
PURSE LOCK
DEGAUSSING COIL
EY2
CPT
CPT P.W.B.
P31
SCREEN
FOCUS
EY1
SERVICEMAN CAUTION LABEL C (F)
N116
EY2 SCREEN
P31
FOCUS EY2 SCREEN
PURSE LOCK ϕ11.5
N106
PURSE LOCK ϕ11.5
N107
N104
PURSE LOCK ϕ11.5
W
EAC W
N102
SK BINDER
DY
FOCUS SCREEN
PURSE LOCK ϕ11.5
N117
N103
SK BINDER
EAC
P2
EY2
JSR
JSL
EY1
EMS1
N114
N115
PURSE LOCK ϕ11.5
EARTH WIRE
M
P31
FOCUS SCREEN
N105
PURSE LOCK ϕ11.5
SP452
R SPEAKER
L SPEAKER
SP451
M EY2
EMH3
EMS1
EMS1 EMH3
EMH2
CONTROL B P.W.B.
EF2
EFV
EF1A
CONTROL A P.W.B.
PURSE LOCK ϕ16
N108
EFV
ANODE
EMS1 EMH2 EMH3
N109
PURSE LOCK ϕ16
Z102
TAPING
PAC1
L902
L901
P2
FILTER P.W.B.
PURSE LOCK ϕ11
N112
EF2 EFV
EF2
EMH3
EY2 M
EMH2
MAIN P.W.B.
I403
I601
JSR
JSL
N111
N110
PURSE LOCK ϕ16
FOCUS SCREEN
Q702
EMH3
EMH2
EMS1
PAC2
PW
EAC W
P2
EY1
EMS1
EY2
FBT
FOCUS
SCREEN
POWER CORD
ANTENNA TERMINAL BOARD
("A" VIEW)
POWER P.W.B.
POWER CORD


N109
PURSE LOCK ϕ16
EMS1
EMH2
EMH3
EAC W
EAC
W
N109
PURSE LOCK ϕ16
EAC
PW
EMS1
EMH3
EMH2

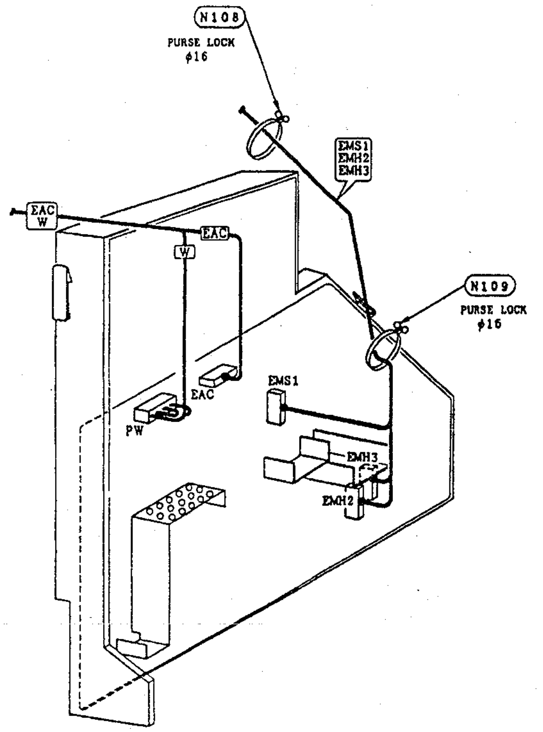
"A" VIEW

32UX51B/32FX41B

WIRING DIAGRAM OF 32UX51B/32FX41B FINAL ASSEMBLY



MAKE A LOOP ϕ40
ANODE CAP
Z101
SILICONE COMPOUND
45°~90°
N114
PURSE LOCK
N101
WIRE CLAMP
DEGAUSSING COIL
CPT
CPT P. W. B.
EY2
EY1
P31
SCREEN
FOCUS
CP MAGNET WITH VM COIL
PURSE LOCK ϕ11. 5
N106
EVM1
N107
SERVICEMAN CAUTION LABEL C (F)
N116
EVMC
DY
N104
PURSE LOCK ϕ11. 5
N103
SK BINDER
N102
SK BINDER
EAC
P2
N117
JSR
JSL
EMS1
W
N114 N115
PURSE LOCK ϕ11. 5
EARTH WIRE
N105
PURSE LOCK ϕ11. 5
Z103
TAPING
SP452 R SPEAKER
SP451 L SPEAKER
EMH3
EMH2
FOCUS SCREEN
PURSE LOCK ϕ16
N108
N109
PURSE LOCK ϕ16
ANODE
EMS1 EMH2 EMH3
Z102
TAPING
PAC1
L902
L901
FILTER P. W. B.
MAIN P. W. B.
EAN
N113
PURSE LOCK ϕ11
EY1
I403
I601
N110
PURSE LOCK ϕ16
M
Q702
PAC2
FW
PBT
EMS1
EVM1
EY2
FOCUS
SCREEN
POWER CORD
ANTENNA TERMINAL BOARD
("A" VIEW)
POWER P. W. B.
POWER CORD



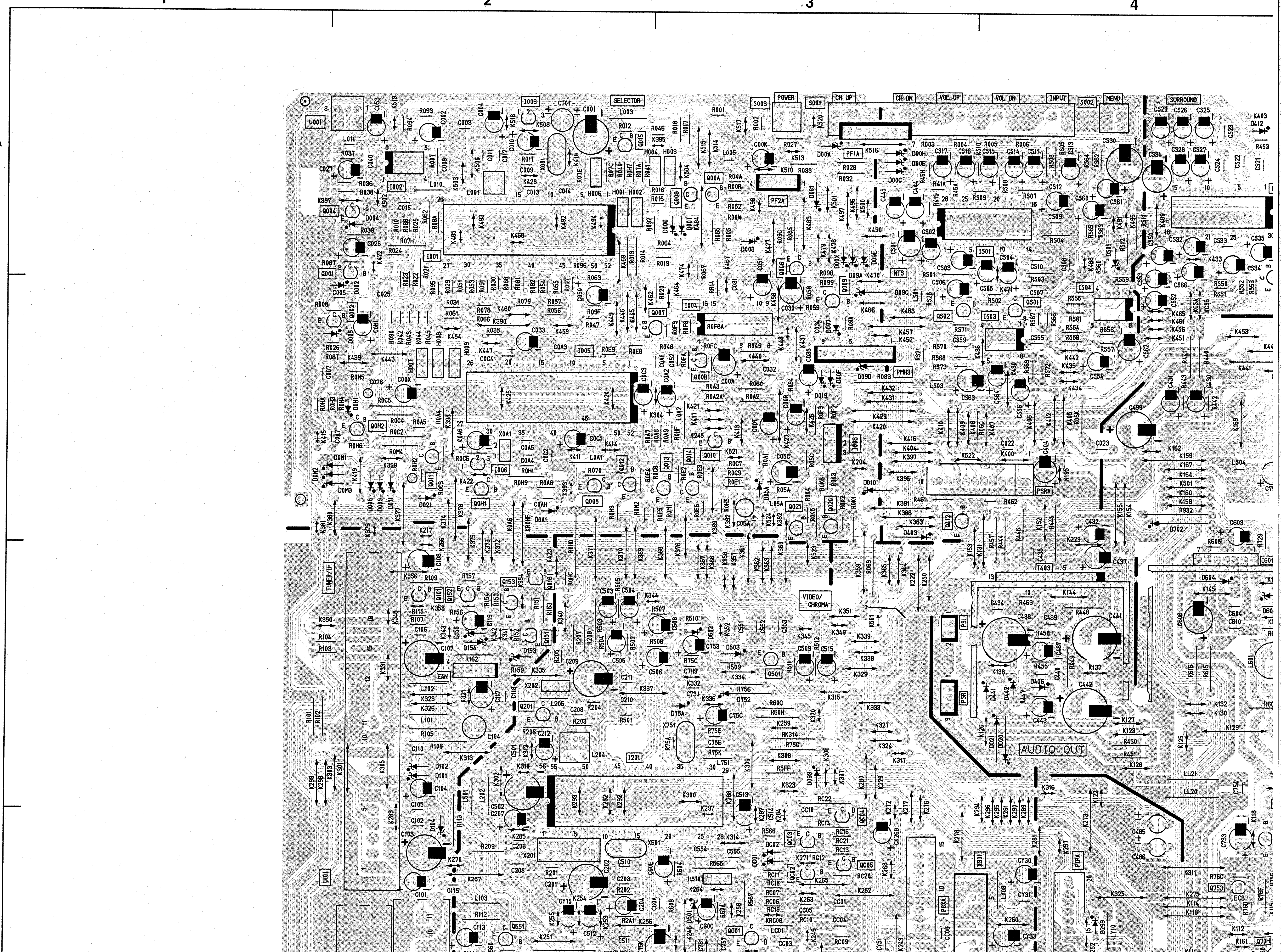
N108
PURSE LOCK ϕ16
EMS1 EMH2 EMH3
EAC W
EAC
W
N109
PURSE LOCK ϕ16
EMS1
EAC
PW
EMH3
EMH2

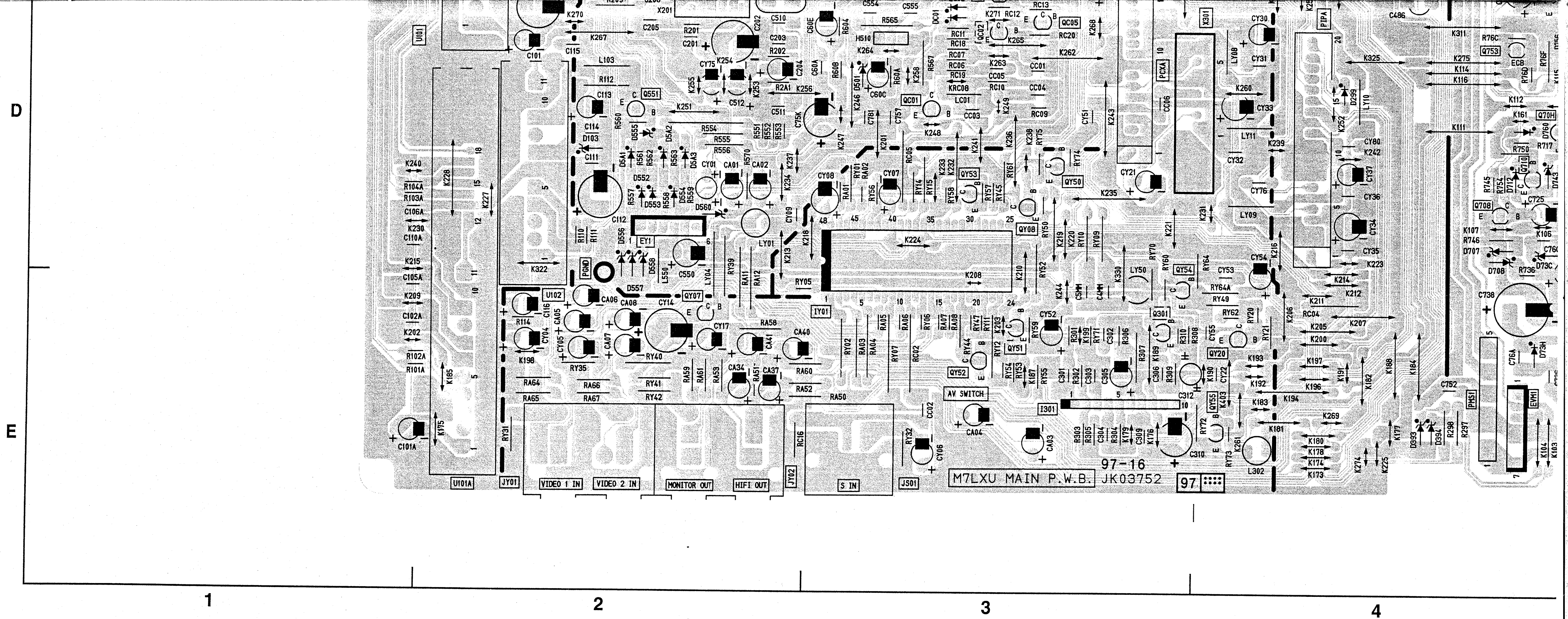
"A" VIEW

PRINTED WIRING BOARD FOIL PATTERN

PF
an
thr

M7LXU MAIN P.W.B.

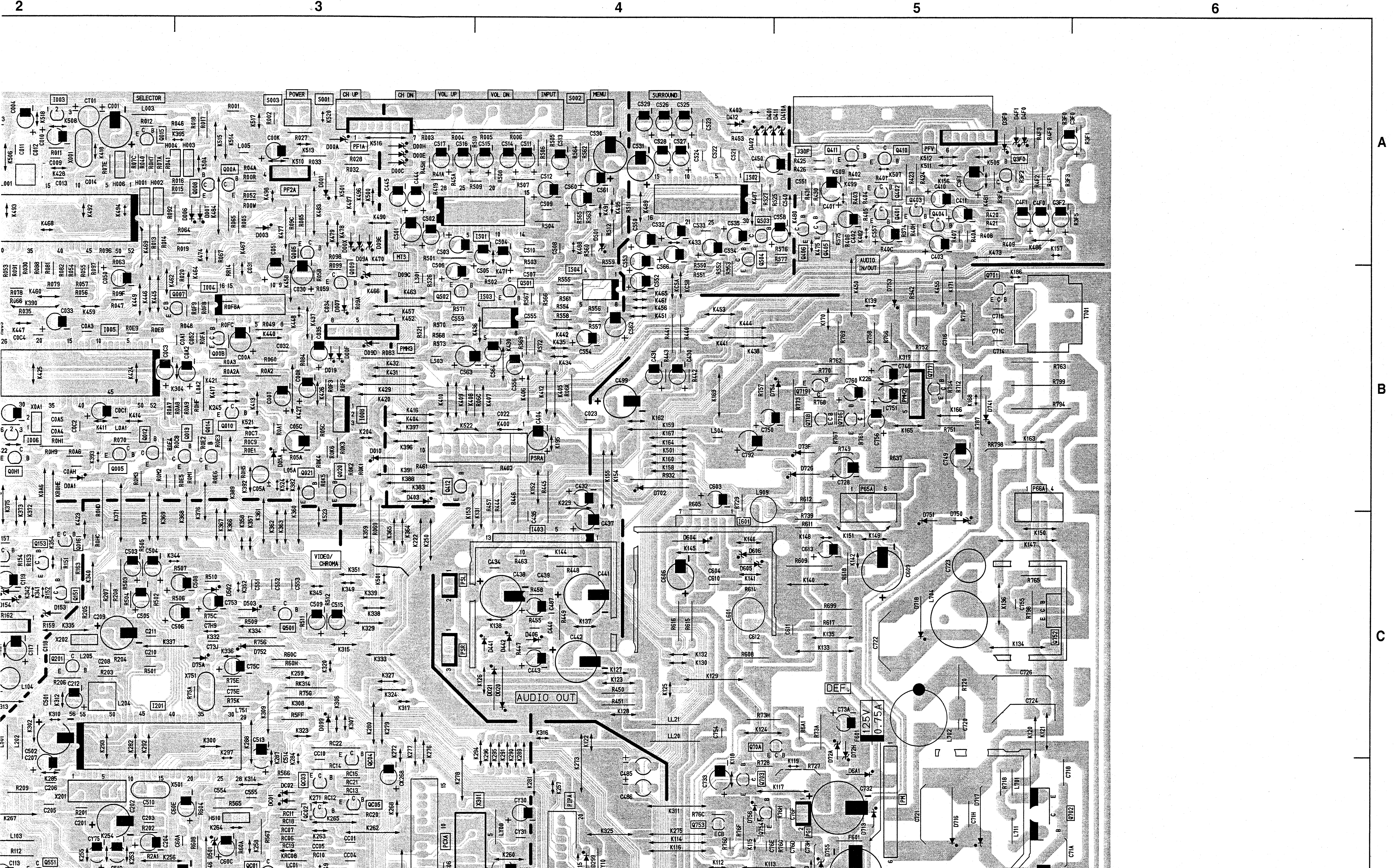

1
2
3
4
A
B
C
D
SELECTOR
POWER
CH UP
CH DN
VOL UP
VOL DN
INPUT
MENU
SURROUND
MTS
TUNER/IF
VIDEO/CHROMA
AUDIO OUT

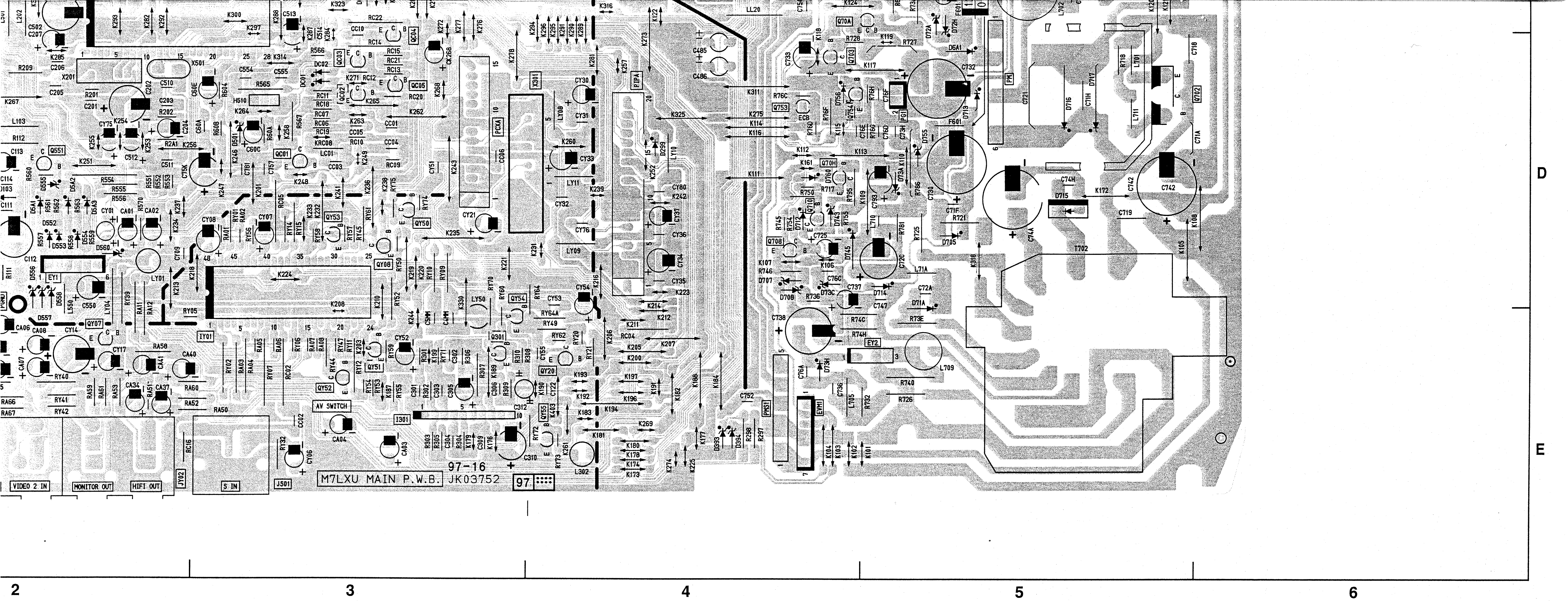

D
E
1
2
3
4
VIDEO 1 IN
VIDEO 2 IN
MONITOR OUT
HIFI OUT
S IN
AV SWITCH
97-16
M7LXU MAIN P.W.B. JK03752

PRINTED WIRING BOARD FOIL PATTERN

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

M7LXU MAIN P.W.B.

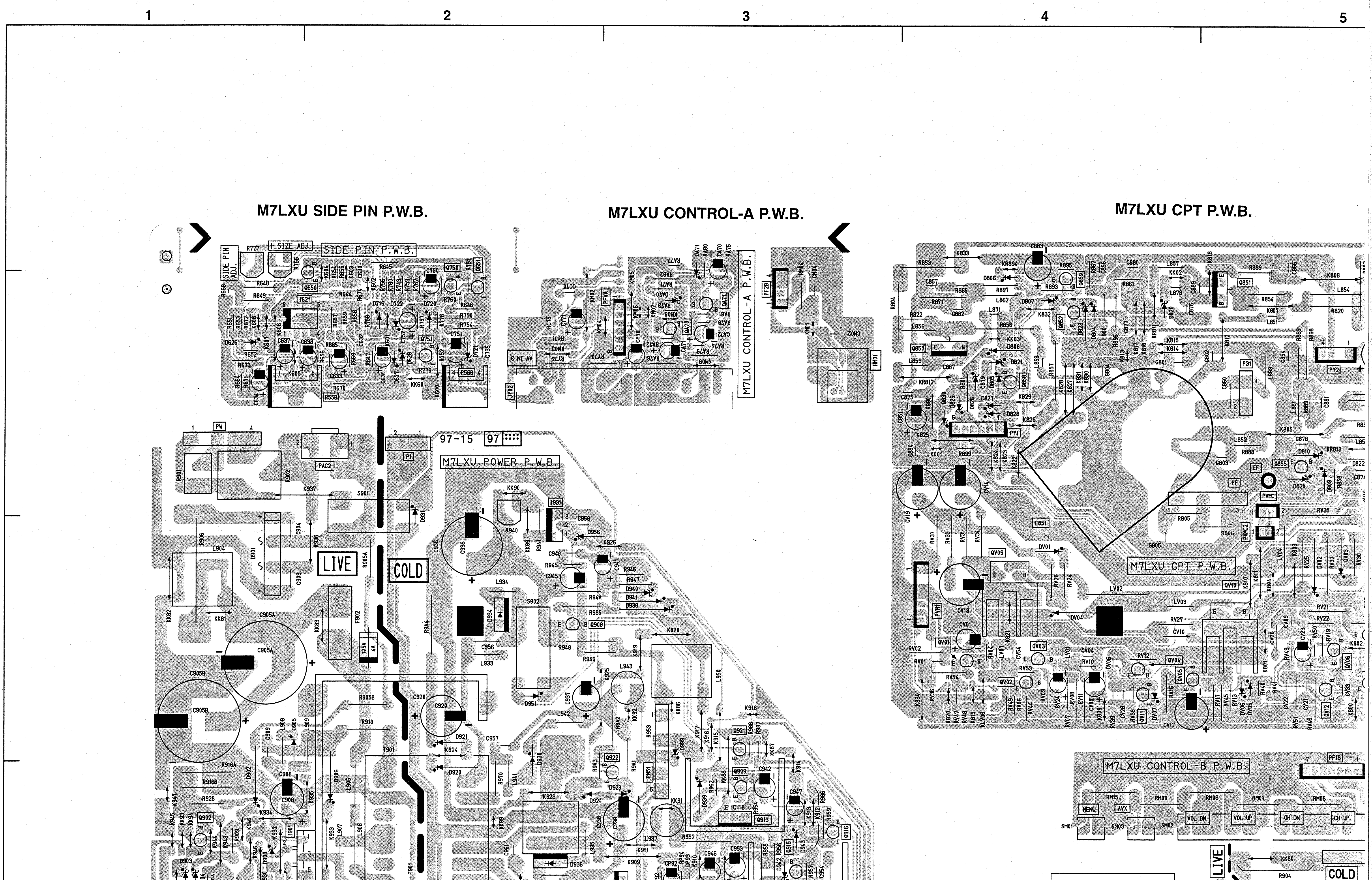

2
3
4
5
6
A
B
C
SELECTOR
POWER
CH UP
CH DN
VOL UP
VOL DN
INPUT
MENU
SURROUND
AUDIO IN/OUT
VIDEO/ CHROMA
AUDIO OUT
DEF.
125V 0.75A
T701
S001
S002
S003
I001
I003
I004
I005
I006
I201
I403
I501
I502
I503
I504
I601
Q701
Q702
P65A
P66A
PSRA
PMH3
PF1A
PF2A
PFV
MTS


M7LXU MAIN P.W.B. JK03752
97-16
VIDEO 2 IN
MONITOR OUT
HIFI OUT
S IN
AV SWITCH
D
E
2
3
4
5
6

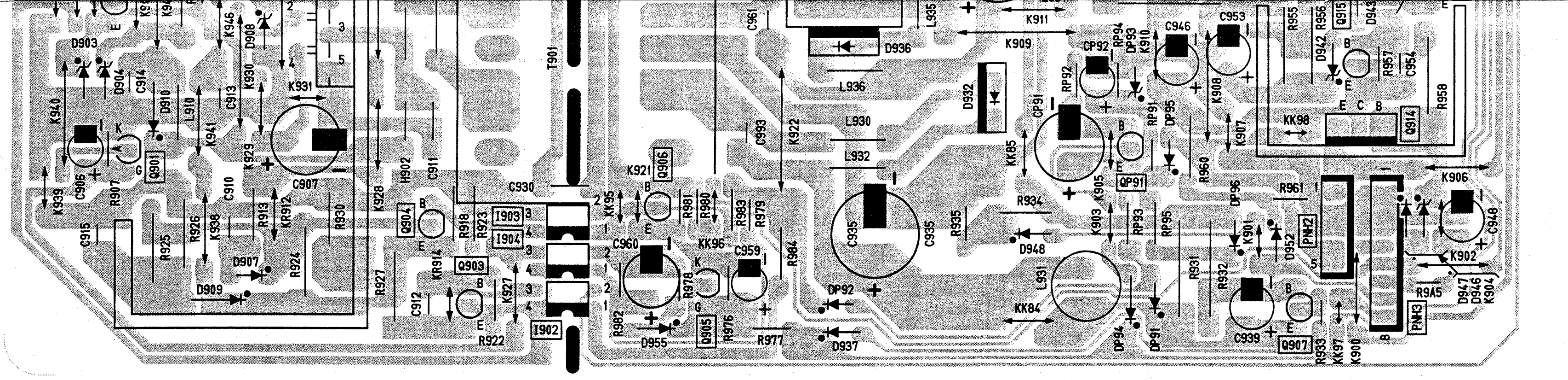
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

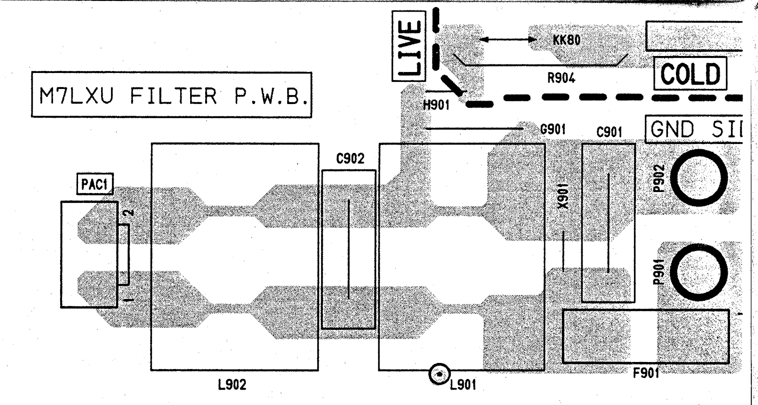
PRINTED WIRING BOARD FOIL PATTERN

PRODUCT SAFETY NOTE: Components n
any of these components, read carefully th
through improper servicing.


1
2
3
4
5
A
B
C
M7LXU SIDE PIN P.W.B.
M7LXU CONTROL-A P.W.B.
M7LXU CPT P.W.B.
SIDE PIN ADJ.
H.SIZE ADJ.
SIDE PIN P.W.B.
M7LXU CONTROL-A P.W.B.
M7LXU POWER P.W.B.
97-15
97
LIVE
COLD
125V 4A
M7LXU CPT P.W.B.
M7LXU CONTROL-B P.W.B.
MENU
AVX
VOL DN
VOL UP
CH DN
CH UP
LIVE
COLD

D


T901
D903
D904
C914
D910
L910
C913
K931
K940
C906
R907
Q901
C910
K941
K929
C907
K939
C915
R925
R926
K938
R913
KR912
R930
K928
H902
C911
D907
D909
R924
R927
Q904
R918
R923
I903
I904
Q903
KR914
C912
K927
R922
I902
C930
C961
L936
D936
L930
L932
K921
Q906
KK95
C960
R981
R980
R983
R979
KK96
C959
C993
K922
R964
R978
R982
D955
Q905
R976
R977
DP92
D937
C935
C936
R935
D932
K911
K909
KK85
CP91
RP92
CP92
R934
K905
D948
K903
L931
KK84
RP94
DP93
K910
C946
C953
RP91
DP95
QP91
RP93
RP95
DP94
DP91
K908
K907
R960
DP96
R931
R932
K901
D952
PM2
C939
Q907
R933
KK97
K900
R955
R956
Q915
D942
D943
R957
C954
R958
KK98
Q914
R961
K906
C948
K902
R9A5
D947
D946
K904
PM3


M7LXU FILTER P.W.B.
LIVE
KK80
COLD
R904
H901
G901
C901
GND SI
PAC1
C902
X901
P902
P901
L902
L901
F901

M7LXU POWER P.W.B.

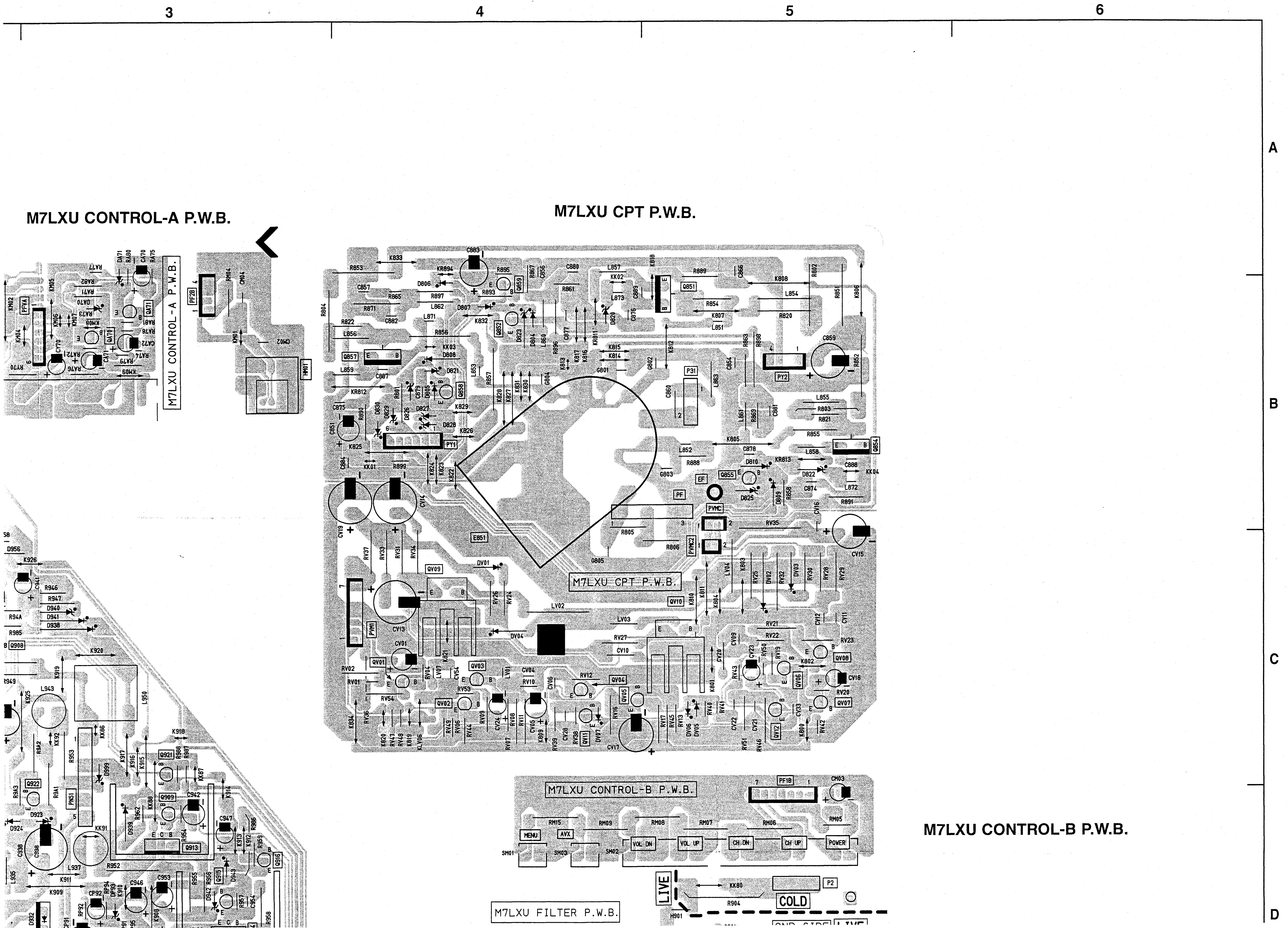
E

1 2 3 4 5

- Since this is a basic circuit diagram, t
- All DC voltage to be measured with a

PRINTED WIRING BOARD FOIL PATTERN

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

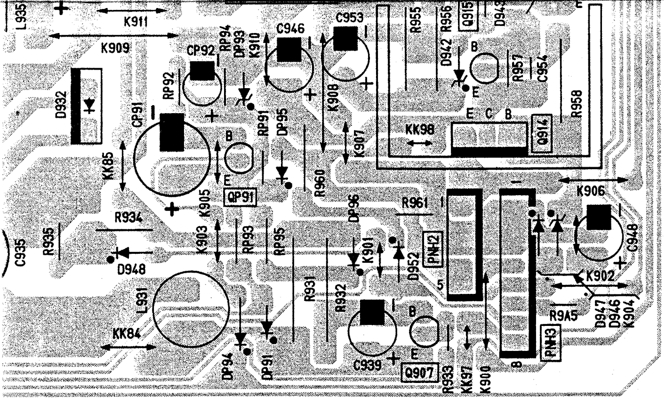


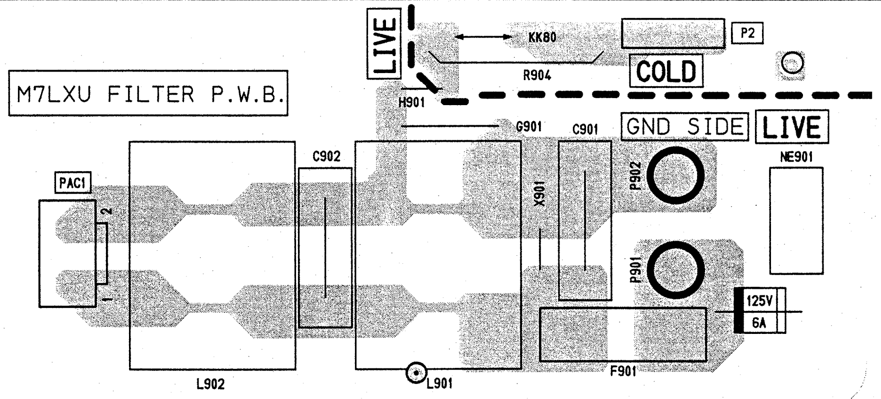
M7LXU CONTROL-A P.W.B.

M7LXU CPT P.W.B.

M7LXU CONTROL-B P.W.B.

3
4
5
6
A
B
C
D
M7LXU CONTROL-A P.W.B.
M7LXU CPT P.W.B.
M7LXU CONTROL-B P.W.B.
M7LXU FILTER P.W.B.
MENU
AVX
VOL DN
VOL UP
CH DN
CH UP
POWER
LIVE
COLD


K911
K909
CP92
RP94
DP93
K910
C946
C953
R955
R956
Q915
D942
D932
QP91
RP92
RP91
DP95
K908
R957
C954
R958
KK65
K987
KK98
Q914
R934
K905
QP91
R960
DP96
K906
R961
R935
C935
K903
RP93
RP95
K901
PN12
C948
D948
D952
K902
L931
R931
R932
R9A5
KK84
DP94
DP91
C939
Q907
PN13
R933
KK97
K900
D947
D946
K904


M7LXU FILTER P.W.B.
LIVE
KK80
P2
R904
COLD
H901
G901
C901
GND SIDE
LIVE
NE901
PAC1
C902
X901
P902
P901
125V
6A
L902
L901
F901

M7LXU FILTER P.W.B.

D

E

3

4

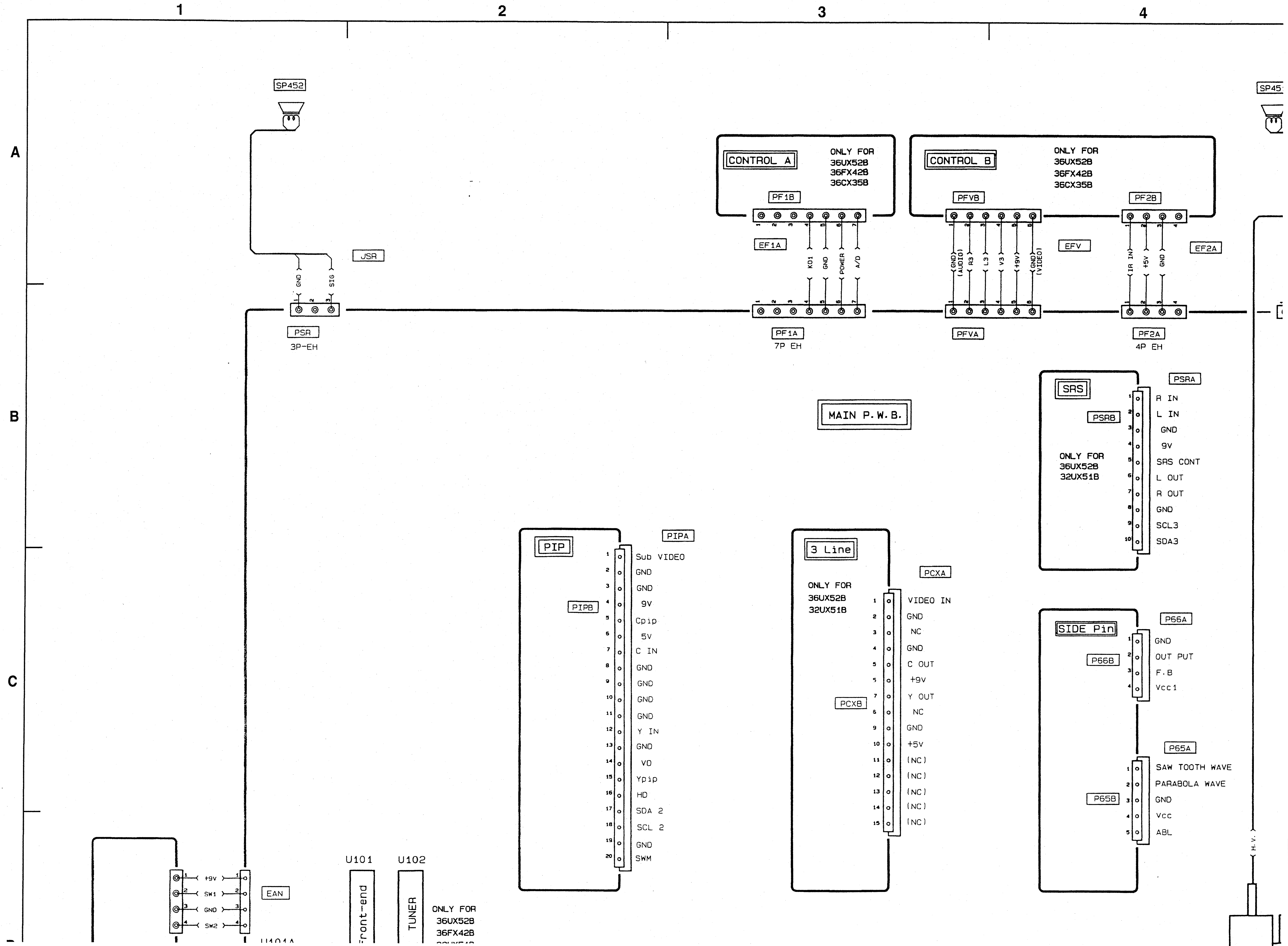
5

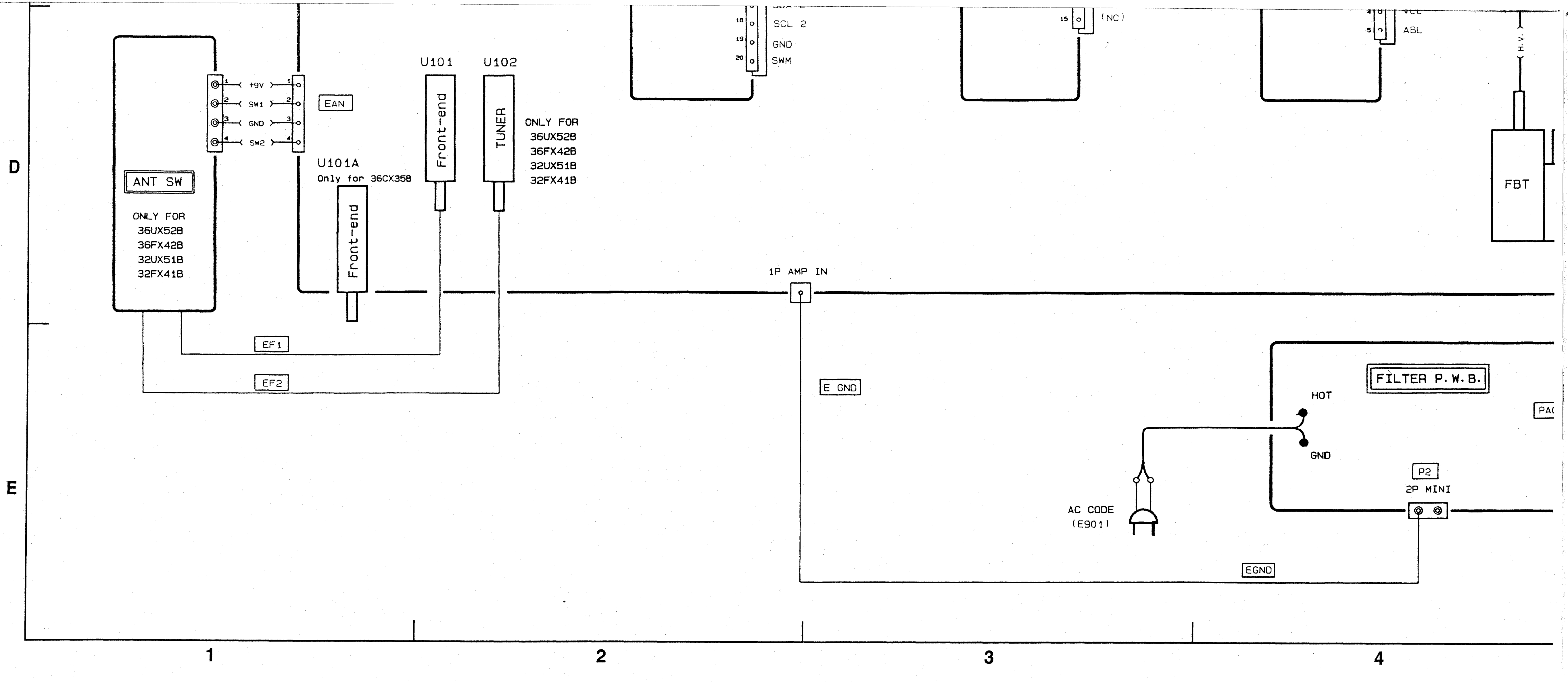
6

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT SCHEMATIC DIAGRAM OF M7LXU CHASSIS

PR
any
thro

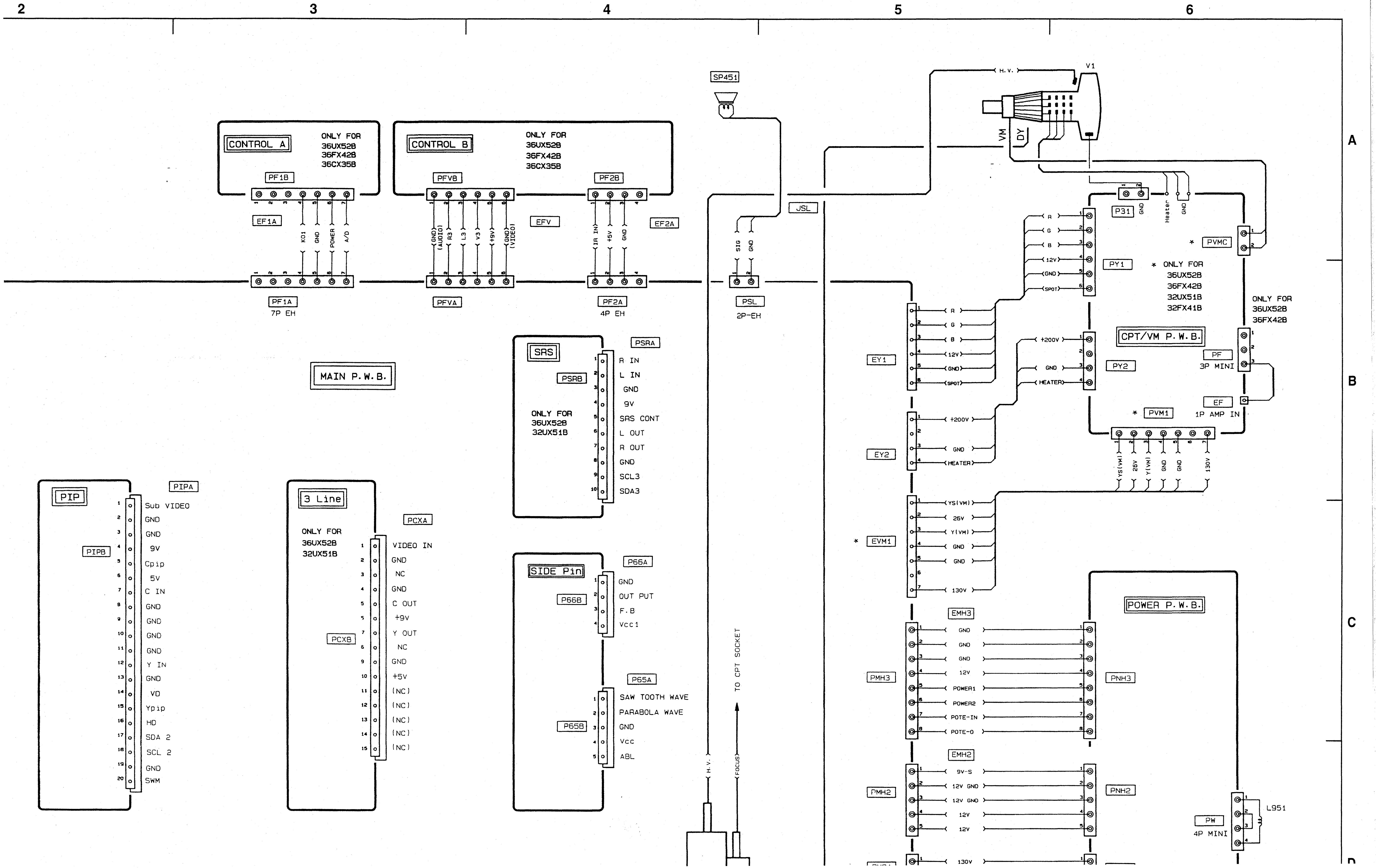

1
2
3
4
A
B
C
SP452
JSR
GND
SIG
PSR
3P-EH
CONTROL A
ONLY FOR
36UX52B
36FX42B
36CX35B
PF1B
EF1A
KO1
GND
POWER
A/D
PF1A
7P EH
CONTROL B
ONLY FOR
36UX52B
36FX42B
36CX35B
PFVB
EFV
GND (AUDIO)
R3
L3
V3
+9V
GND (VIDEO)
PFVA
PF2B
EF2A
IR IN
+5V
GND
PF2A
4P EH
SP45
MAIN P.W.B.
SRS
PSRA
PSRB
ONLY FOR
36UX52B
32UX51B
R IN
L IN
GND
9V
SRS CONT
L OUT
R OUT
GND
SCL3
SDA3
PIP
PIPA
PIPB
Sub VIDEO
GND
GND
9V
Cpip
5V
C IN
GND
GND
GND
GND
Y IN
GND
VD
Ypip
HD
SDA 2
SCL 2
GND
SWM
3 Line
ONLY FOR
36UX52B
32UX51B
PCXA
PCXB
VIDEO IN
GND
NC
GND
C OUT
+9V
Y OUT
NC
GND
+5V
(NC)
(NC)
(NC)
(NC)
(NC)
SIDE Pin
P66A
P66B
GND
OUT PUT
F.B
Vcc1
P65A
P65B
SAW TOOTH WAVE
PARABOLA WAVE
GND
Vcc
ABL
H.V.
+9V
SW1
GND
SW2
EAN
U101A
U101
U102
Front-end
TUNER
ONLY FOR
36UX52B
36FX42B

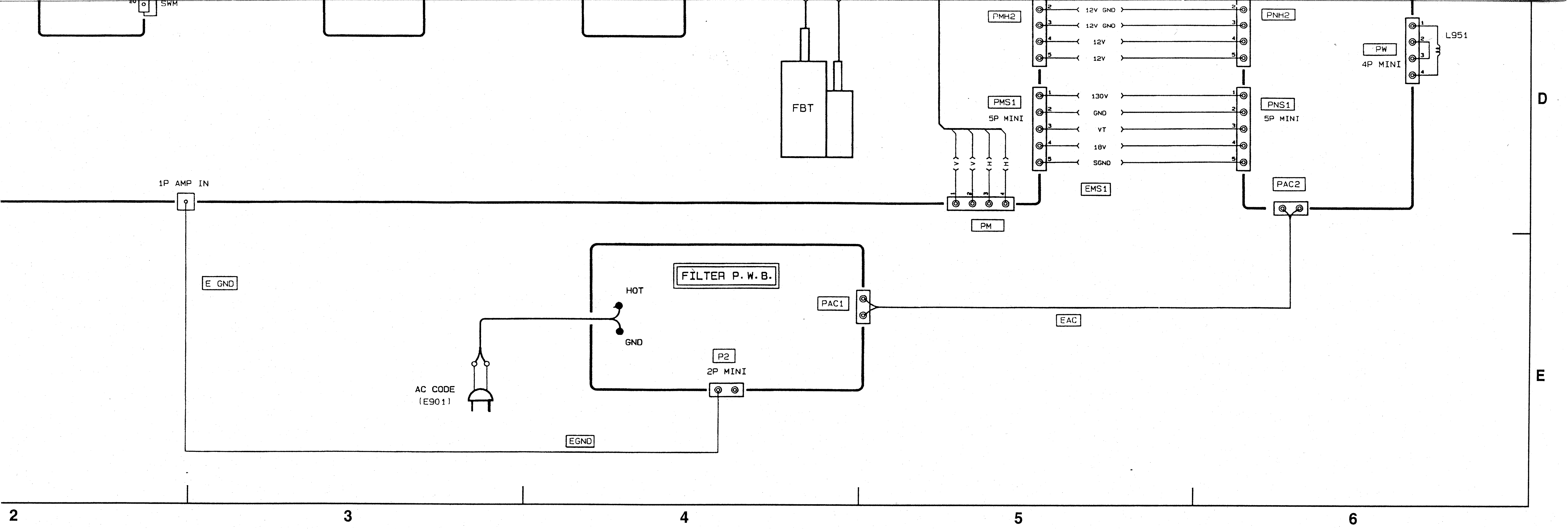


SCL 2
GND
SWM
(NC)
ABL
H.V.
FBT
U101
U102
+9V
SW1
GND
SW2
EAN
Front-end
TUNER
ONLY FOR
36UX52B
36FX42B
32UX51B
32FX41B
U101A
Only for 36CX358
Front-end
ANT SW
ONLY FOR
36UX52B
36FX42B
32UX51B
32FX41B
1P AMP IN
EF1
EF2
E GND
FILTER P.W.B.
HOT
GND
P2
2P MINI
AC CODE
(E901)
EGND
D
E
1
2
3
4

CIRCUIT SCHEMATIC DIAGRAM OF M7LXU CHASSIS

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


2
3
4
5
6
A
B
C
D
CONTROL A
ONLY FOR 36UX52B 36FX42B 36CX35B
PF1B
EF1A
KOI
GND
POWER
A/D
PF1A
7P EH
CONTROL B
ONLY FOR 36UX52B 36FX42B 36CX35B
PFVB
EFV
GND (AUDIO)
R3
L3
V3
+9V
GND (VIDEO)
PFVA
PF2B
EF2A
IR IN
+5V
GND
PF2A
4P EH
SP451
SIG
GND
PSL
2P-EH
JSL
H.V.
V1
VM
DY
P31
GND
Heater
GND
PVMC
ONLY FOR 36UX52B 36FX42B
PY1
R
G
B
12V
GND
SPOT
* ONLY FOR 36UX52B 36FX42B 32UX51B 32FX41B
EY1
CPT/VM P.W.B.
PY2
+200V
GND
HEATER
PF
3P MINI
EF
1P AMP IN
EY2
* PVM1
YS(VM)
26V
Y(VM)
GND
GND
130V
* EVM1
MAIN P.W.B.
SRS
PSRB
PSRA
ONLY FOR 36UX52B 32UX51B
R IN
L IN
GND
9V
SRS CONT
L OUT
R OUT
GND
SCL3
SDA3
PIP
PIPA
PIPB
Sub VIDEO
GND
GND
9V
Cpip
5V
C IN
GND
GND
GND
GND
Y IN
GND
VD
Ypip
HD
SDA 2
SCL 2
GND
SWM
3 Line
PCXA
PCXB
ONLY FOR 36UX52B 32UX51B
VIDEO IN
GND
NC
GND
C OUT
+9V
Y OUT
NC
GND
+5V
(NC)
(NC)
(NC)
(NC)
(NC)
SIDE Pin
P66A
P66B
GND
OUT PUT
F.B
Vcc1
P65A
P65B
SAW TOOTH WAVE
PARABOLA WAVE
GND
Vcc
ABL
TO CPT SOCKET
H.V.
FOCUS
EMH3
PMH3
PNH3
POWER P.W.B.
GND
GND
GND
12V
POWER1
POWER2
POTE-IN
POTE-O
EMH2
PMH2
PNH2
9V-S
12V GND
12V GND
12V
12V
130V
PW
4P MINI
L951

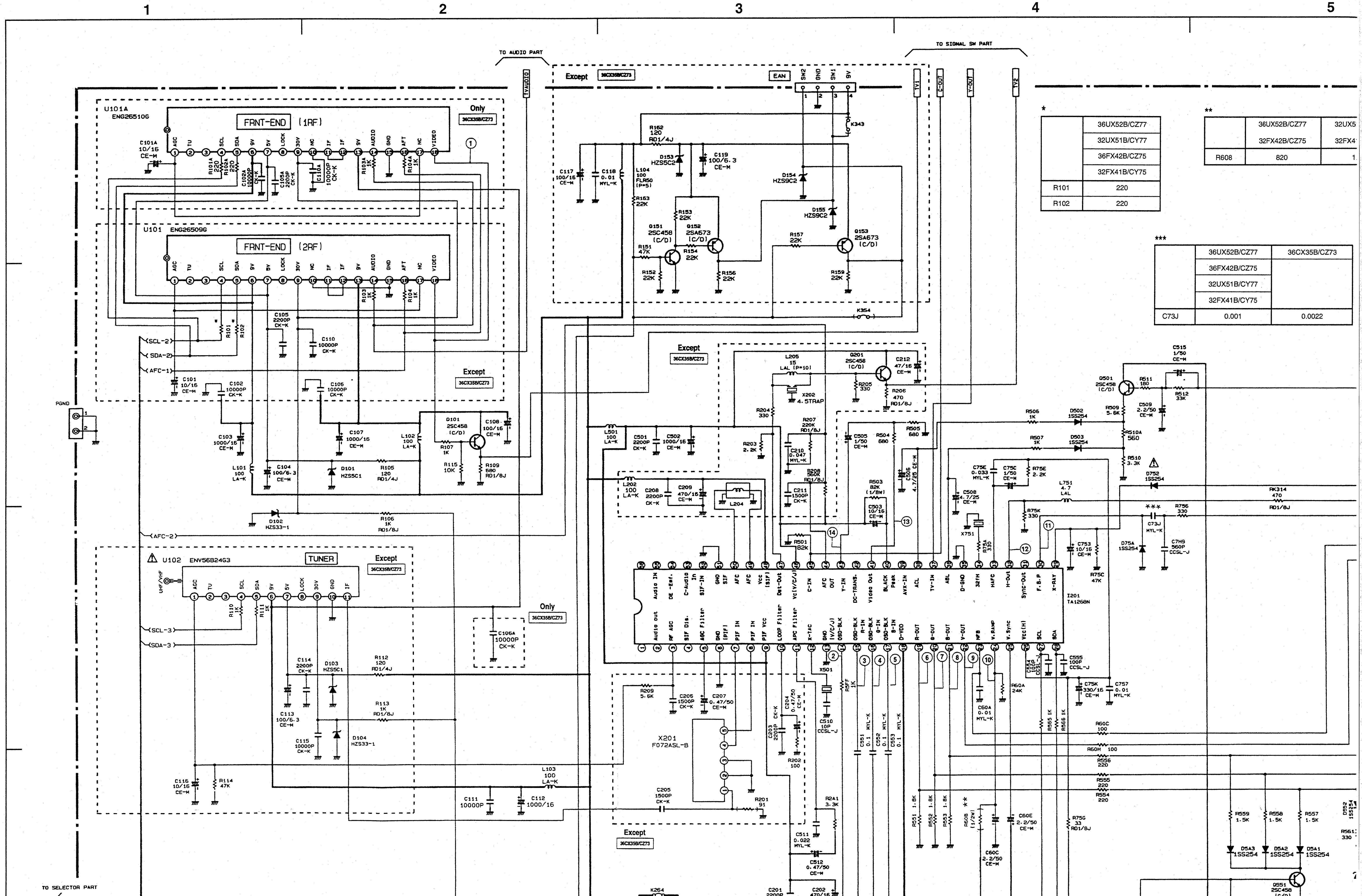

SWM
FBT
PMH2
12V GND
12V GND
12V
12V
PNH2
PW
4P MINI
L951
PMS1
5P MINI
130V
GND
VT
18V
SGND
PNS1
5P MINI
EMS1
PAC2
1P AMP IN
V
V
H
H
PM
E GND
FILTER P.W.B.
HOT
GND
PAC1
EAC
P2
2P MINI
AC CODE
(E901)
EGND
D
E
2
3
4
5
6

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY5 AND 36CX35B/CZ73

MAIN P.W.B. SIGNAL PART (1/3)

PRODUCT SAFETY NOTE: Components m
any of these components, read carefully the
through improper servicing.


1
2
3
4
5
A
B
C
D
TO AUDIO PART
TO SIGNAL SW PART
TO SELECTOR PART
U101A ENG26510G
FRNT-END (1RF)
Only 36CX35B/CZ73
U101 ENG26509G
FRNT-END (2RF)
AGC
TU
SCL
SDA
9V
5V
LOCK
30V
NC
IF
AUDIO
GND
AFT
VIDEO
Except 36CX35B/CZ73
EAN
SW2
GND
SW1
TV1
C-OUT
Y-OUT
TV2
TVAUDIO
K343
K354
R162 120 RD1/4J
D153 HZS5C2
C119 100/6.3 CE-M
C117 100/16 CE-M
C118 0.01 MYL-K
L104 100 FLR50 (P=5)
R163 22K
D154 HZS9C2
D155 HZS9C2
R153 22K
Q151 2SC458 (C/D)
Q152 2SA673 (C/D)
Q153 2SA673 (C/D)
R151 47K
R154 22K
R152 22K
R156 22K
R157 22K
R159 22K
C101A 10/16 CE-M
R101A 220
R102A 220
C102A 10000P CK-K
C105A 2200P CK-K
C110A 10000P CK-K
R103A 1K
R104A 1K
R103 1K
R104 1K
R101
R102
C105 2200P CK-K
C110 10000P CK-K
SCL-2
SDA-2
AFC-1
AFC-2
SCL-3
SDA-3
C101 10/16 CE-M
C102 10000P CK-K
C106 10000P CK-K
PGND
C103 1000/16 CE-M
L101 100 LA-K
C104 100/6.3 CE-M
C107 1000/16 CE-M
D101 HZS5C1
R105 120 RD1/4J
L102 100 LA-K
Q101 2SC458 (C/D)
C108 100/16 CE-M
R107 1K
R115 10K
R109 680 RD1/8J
D102 HZS33-1
R106 1K RD1/8J
U102 ENV56B24G3
TUNER
UHF/VHF
R110 1K
R111 1K
C106A 10000P CK-K
C114 2200P CK-K
D103 HZS5C1
R112 120 RD1/4J
C113 100/6.3 CE-M
R113 1K RD1/8J
C115 10000P CK-K
D104 HZS33-1
C116 10/16 CE-M
R114 47K
C111 10000P
L103 100 LA-K
C112 1000/16
L205 15 LAL (P=10)
Q201 2SC458 (C/D)
C212 47/16 CE-M
R205 330
R206 470 RD1/8J
X202 4.5TRAP
R204 330
R207 220K RD1/8J
R203 2.2K
C210 0.047 MYL-K
R208 560K RD1/8J
C211 1500P CK-K
L501 100 LA-K
C501 2200P CK-K
C502 1000/16 CE-M
L202 100 LA-K
C208 2200P CK-K
C209 470/16 CE-M
L204
C505 1/50 CE-M
R504 680
R505 680
C506 4.7/25 CE-M
R503 82K (1/8W)
C503 10/16 CE-M
R501 82K
I201 TA1268N
Audio IN
DE-Emf.
C-Audio In
SIF-IN
GND
SIF
AFC
Vcc (SIF)
Det-Out
Vc(V/C/J)
C-IN
AFC OUT
Y-IN
DC-TRANS.
Video Out
BLACK Peak
AVX-IN
ACL
TV-IN
ABL
D-GND
32fH
HAFC
H-Out
Sync-Out
F.B.P
X-RAY
Audio out
RF AGC
SIF Dis.
AGC Filter
GND (PIF)
PIF IN
PIF Vcc
LOOP Filter
APC Filter
X-TAC
GND (V/C/J)
OSD-BLK
OSD-R-IN
OSD-G-IN
OSD-B-IN
D-VDD
R-OUT
G-OUT
B-OUT
Y-OUT
NFB
V.RAMP
V.Sync
Vcc(H)
SCL
SDA
X501
C510 10P CCSL-J
R5FF 1K
C551 0.1 MYL-K
C552 0.1 MYL-K
C553 0.1 MYL-K
C554 10P CCSL-J
C555 100P CCSL-J
C75K 330/16 CE-M
C757 0.01 MYL-K
R60A 24K
C60A 0.01 MYL-K
R555 1K
R566 1K
R60C 100
R60H 100
R556 220
R555 220
R554 220
R551 1.8K
R552 1.8K
R553 1.8K
R608 (1/2W)
C60E 2.2/50 CE-M
C60C 2.2/50 CE-M
R75G 33 RD1/8J
R209 5.6K
C206 1500P CK-K
C207 0.47/50 CE-M
X201 F072ASL-B
C203 2200P CK-K
C204 0.47/50 CE-M
R202 100
R201 91
C205 1500P CK-K
R2A1 3.3K
C511 0.022 MYL-K
C512 0.47/50 CE-M
C201 2200P
C202 470/16
K264
R506 1K
R507 1K
D502 1SS254
D503 1SS254
Q501 2SC458 (C/D)
R511 180
C515 1/50 CE-M
R512 33K
R509 5.6K
C509 2.2/50 CE-M
R510A 560
R510 3.3K
D752 1SS254
C75E 0.033 MYL-K
C75C 1/50 CE-M
R75E 2.2K
L751 4.7 LAL
C508 4.7/25 CE-M
R75K 330
X751
R75A 330
C753 10/16 CE-M
R75C 47K
RK314 470 RD1/8J
R756 330
C73J MYL-K
D75A 1SS254
C7HS 560P CCSL-J
R559 1.5K
R558 1.5K
R557 1.5K
D5A3 1SS254
D5A2 1SS254
D5A1 1SS254
Q551 2SC458
R561 330
D552 1SS254

*

	36UX52B/CZ77 32UX51B/CY77 36FX42B/CZ75 32FX41B/CY75
R101	220
R102	220

**

	36UX52B/CZ77 32FX42B/CZ75	32UX5 32FX4
R608	820	1

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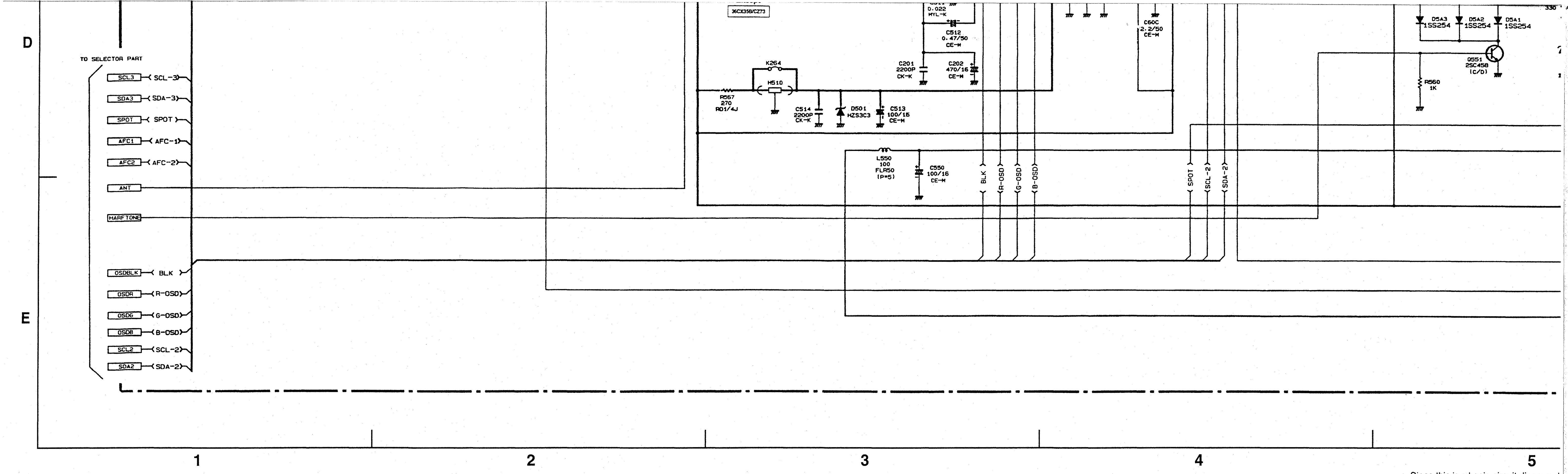
	36UX52B/CZ77 36FX42B/CZ75 32UX51B/CY77 32FX41B/CY75	36CX35B/CZ73
C73J	0.001	0.0022


D
E
TO SELECTOR PART
SCL3
SCL-3
SDA3
SDA-3
SPOT
SPOT
AFC1
AFC-1
AFC2
AFC-2
ANT
HARFTONE
OSDBLK
BLK
OSDR
R-OSD
OSDG
G-OSD
OSDB
B-OSD
SCL2
SCL-2
SDA2
SDA-2
36CX35B/CZ73
0.022
MYL-K
C512
0.47/50
CE-M
C201
2200P
CK-K
C202
470/16
CE-M
K264
H510
R567
270
RD1/4J
C514
2200P
CK-K
D501
HZS3C3
C513
100/16
CE-M
L550
100
FLR50
(P=5)
C550
100/16
CE-M
BLK
R-OSD
G-OSD
B-OSD
C60C
2.2/50
CE-M
SPOT
SCL-2
SDA-2
330
D5A3
1SS254
D5A2
1SS254
D5A1
1SS254
Q551
2SC458
(C/D)
R560
1K
1
2
3
4
5

- Since this is a basic circuit diagram, t
- All DC voltage to be measured with a

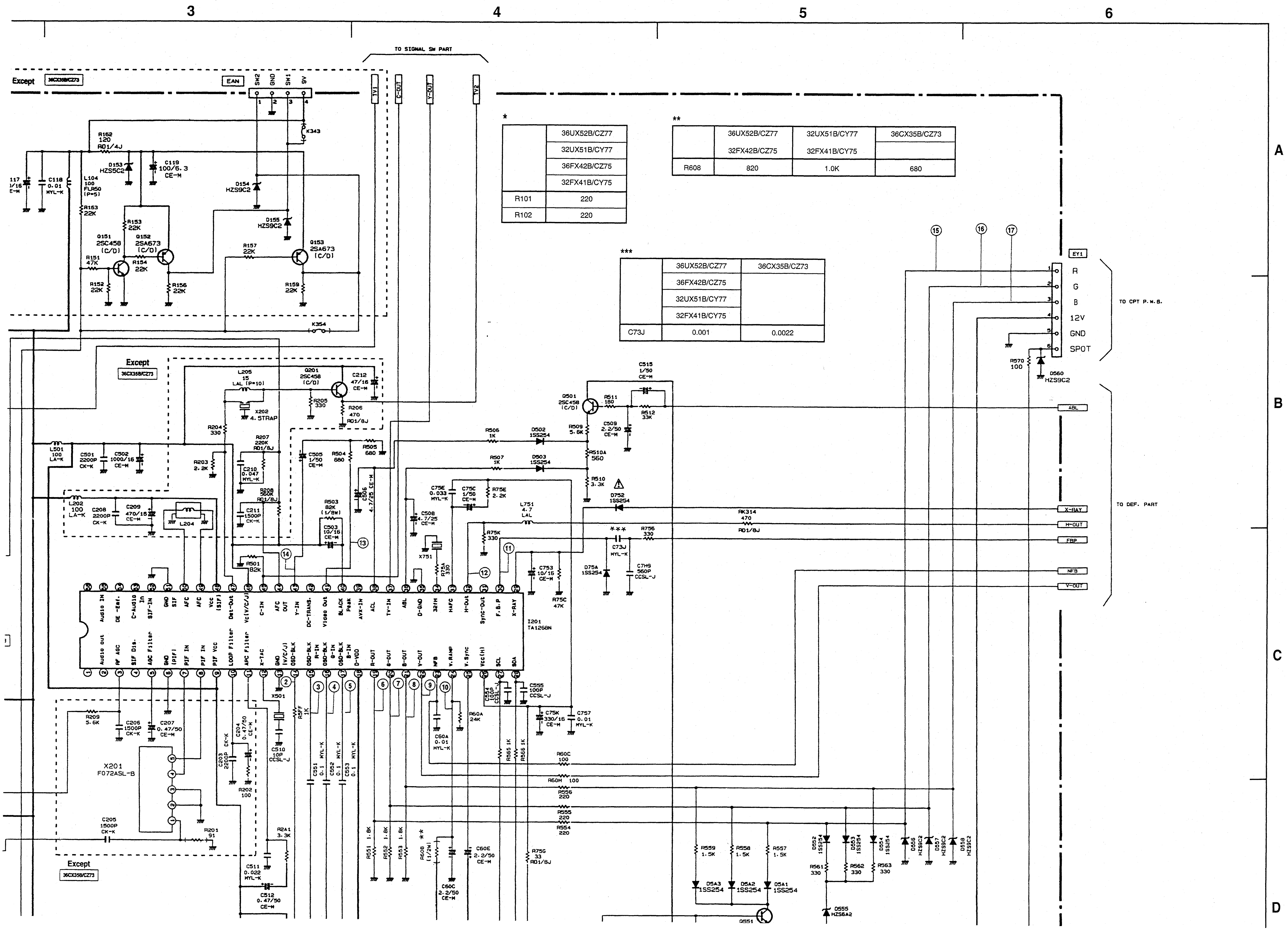
CIRCUIT No.	Pin No.	DC Voltage Vdc
I201	1	0
	2	4
	3	8
	4	3
	5	8
	6	0
	7	2
	8	0
	9	9
	10	4.5
	11	6
	12	5
	13	0
	14	0
	15	5
	16	5
	17	5
	18	3.5
	19	3
	20	3
	21	3.5
	22	0.4
	23	5
	24	5
	25	5
	26	7.5
	27	4.5
I201	28	4.5
	29	0
	30	1
	31	0
	32	1
	33	6
	34	4.5
	35	0
	36	3
	37	3
	38	4
	39	1.5
	40	5
	41	3
	42	4.5
	43	4.5
	44	2.5
	45	2.5
	46	9
	47	5
	48	9
	49	8
	50	8
	51	0
	52	0
	53	3
	54	7.5
	55	3
	56	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
Q101	B	4
	C	9
	E	3.5
Q151	B	0.6
	C	0
	E	0
Q152	B	4.5
	C	5
	E	5
Q153	B	8
	C	0
	E	5
Q201	B	3
	C	9
	E	2
Q501	B	9.5
	C	9
	E	8
Q551	B	0
	C	5
	E	0

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY5 AND 36CX35B/CZ73

MAIN P.W.B. SIGNAL PART (1/3)

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


3
4
5
6
A
B
C
D
Except 36CX35B/CZ73
EAN
SW2
GND
SW1
9V
TO SIGNAL SW PART
TV1
C-OUT
Y-OUT
TV2
K343
R162 120 RD1/4J
D153 HZS5C2
C119 100/6.3 CE-M
C118 0.01 MYL-K
L104 100 FLR50 (P=5)
R163 22K
D154 HZS9C2
D155 HZS9C2
R153 22K
Q151 2SC458 (C/D)
Q152 2SA673 (C/D)
Q153 2SA673 (C/D)
R151 47K
R154 22K
R157 22K
R152 22K
R156 22K
R159 22K
K354
Except 36CX35B/CZ73
L205 15 LAL (P=10)
Q201 2SC458 (C/D)
C212 47/16 CE-M
X202 4.5TRAP
R205 330
R206 470 RD1/8J
R204 330
R207 220K RD1/8J
L501 100 LA-K
C501 2200P CK-K
C502 1000/16 CE-M
R203 2.2K
C210 0.047 MYL-K
C505 1/50 CE-M
R504 680
R505 680
C506 4.7/25 CE-M
R208 560K RD1/8J
L202 100 LA-K
C208 2200P CK-K
C209 470/16 CE-M
L204
C211 1500P CK-K
R503 82K (1/8W)
C503 10/16 CE-M
R501 82K
C508 4.7/25 CE-M
X751
R75A 330
C75E 0.033 MYL-K
C75C 1/50 CE-M
R75E 2.2K
L751 4.7 LAL
R75K 330
C753 10/16 CE-M
R75C 47K
R506 1K
D502 1SS254
R507 1K
D503 1SS254
Q501 2SC458 (C/D)
R511 180
R512 33K
C515 1/50 CE-M
C509 2.2/50 CE-M
R509 5.6K
R510A 560
R510 3.3K
D752 1SS254
RK314 470 RD1/8J
R756 330
C73J MYL-K
D75A 1SS254
C7H9 560P CCSL-J
R570 100
D560 HZS9C2
EY1
R
G
B
12V
GND
SPOT
TO CPT P.W.B.
ABL
X-RAY
H-OUT
FBP
NFB
V-OUT
TO DEF. PART
I201 TA1268N
Audio IN
DE-Emf.
C-Audio In
SIF-IN
GND SIF
AFC
AFC
Vcc (SIF)
Det-Out
Vc(V/C/J)
C-IN
AFC OUT
Y-IN
DC-TRANS.
Video Out
BLACK Peak
AVX-IN
ACL
TV-IN
ABL
D-GND
32fH
HAFC
H-Out
Sync-Out
F.B.P
X-RAY
Audio out
RF AGC
SIF Dis.
AGC Filter
GND (PIF)
PIF IN
PIF IN
PIF Vcc
LOOP Filter
APC Filter
X-TAL
GND (V/C/J)
OSD-BLK
R-IN
OSD-BLK
G-IN
OSD-BLK
B-IN
D-VDD
R-OUT
G-OUT
B-OUT
V-OUT
NFB
V.RAMP
V.Sync
Vcc(H)
SCL
SDA
R209 5.6K
C206 1500P CK-K
C207 0.47/50 CE-M
X201 F072ASL-B
C205 1500P CK-K
R201 91
Except 36CX35B/CZ73
C203 2200P CK-K
C204 0.47/50 CE-M
R202 100
X501
R5FF 1K
C510 10P CCSL-J
R2A1 3.3K
C511 0.022 MYL-K
C512 0.47/50 CE-M
C551 0.1 MYL-K
C552 0.1 MYL-K
C553 0.1 MYL-K
C60A 0.01 MYL-K
R60A 24K
C554 100P CCSL-J
C555 100P CCSL-J
C75K 330/16 CE-M
C757 0.01 MYL-K
R555 1K
R556 1K
R60C 100
R60H 100
R556 220
R555 220
R554 220
R551 1.8K
R552 1.8K
R553 1.8K
R608 (1/2W) **
C60C 2.2/50 CE-M
C60E 2.2/50 CE-M
R75G 33 RD1/8J
R559 1.5K
R558 1.5K
R557 1.5K
D5A3 1SS254
D5A2 1SS254
D5A1 1SS254
Q551
D552 1SS254
D553 1SS254
D554 1SS254
R561 330
R562 330
R563 330
D556 HZS9C2
D557 HZS9C2
D558 HZS9C2
D555 HZS6A2

*

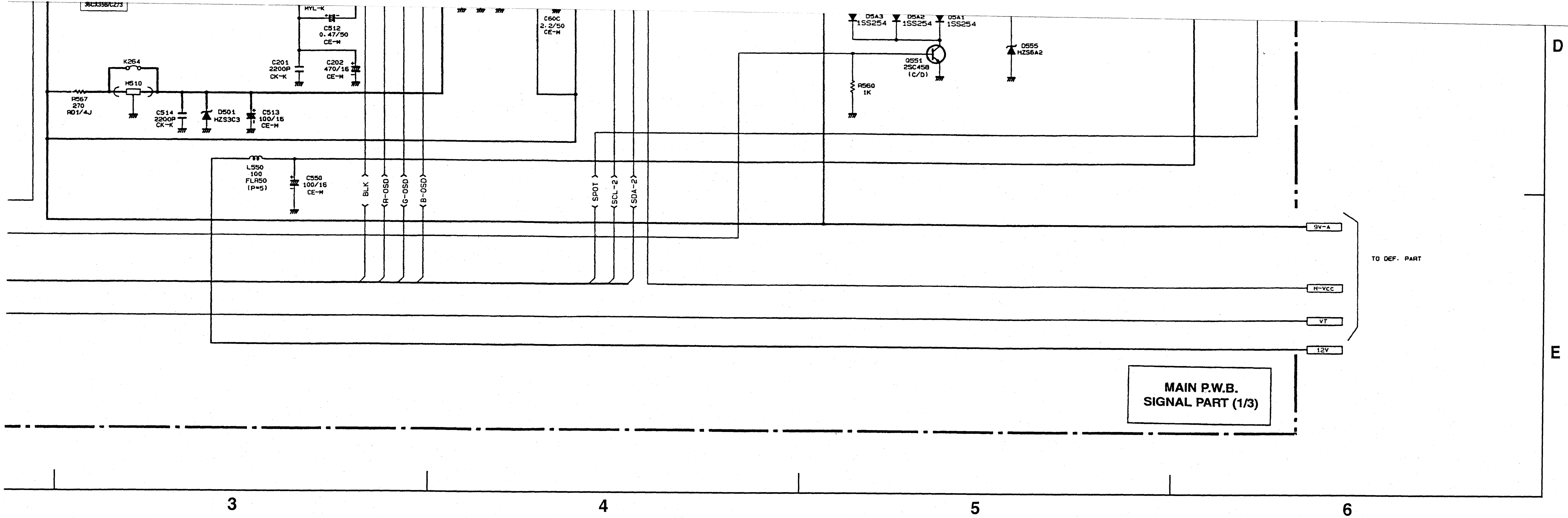
	36UX52B/CZ77 32UX51B/CY77 36FX42B/CZ75 32FX41B/CY75
R101	220
R102	220

**

	36UX52B/CZ77 32FX42B/CZ75	32UX51B/CY77 32FX41B/CY75	36CX35B/CZ73
R608	820	1.0K	680

***

	36UX52B/CZ77 36FX42B/CZ75 32UX51B/CY77 32FX41B/CY75	36CX35B/CZ73
C73J	0.001	0.0022


K264
H510
R567
270
RD1/4J
C514
2200P
CK-K
D501
HZS3C3
C513
100/16
CE-M
C512
0.47/50
CE-M
C201
2200P
CK-K
C202
470/16
CE-M
C60C
2.2/50
CE-M
L550
100
FLR50
(P=5)
C550
100/16
CE-M
BLK
R-OSD
G-OSD
B-OSD
SPOT
SCL-2
SDA-2
D5A3
1SS254
D5A2
1SS254
D5A1
1SS254
Q551
2SC458
(C/D)
D555
HZS6A2
R560
1K
9V-A
M-VCC
VT
12V
TO DEF. PART
MAIN P.W.B.
SIGNAL PART (1/3)
D
E
3
4
5
6

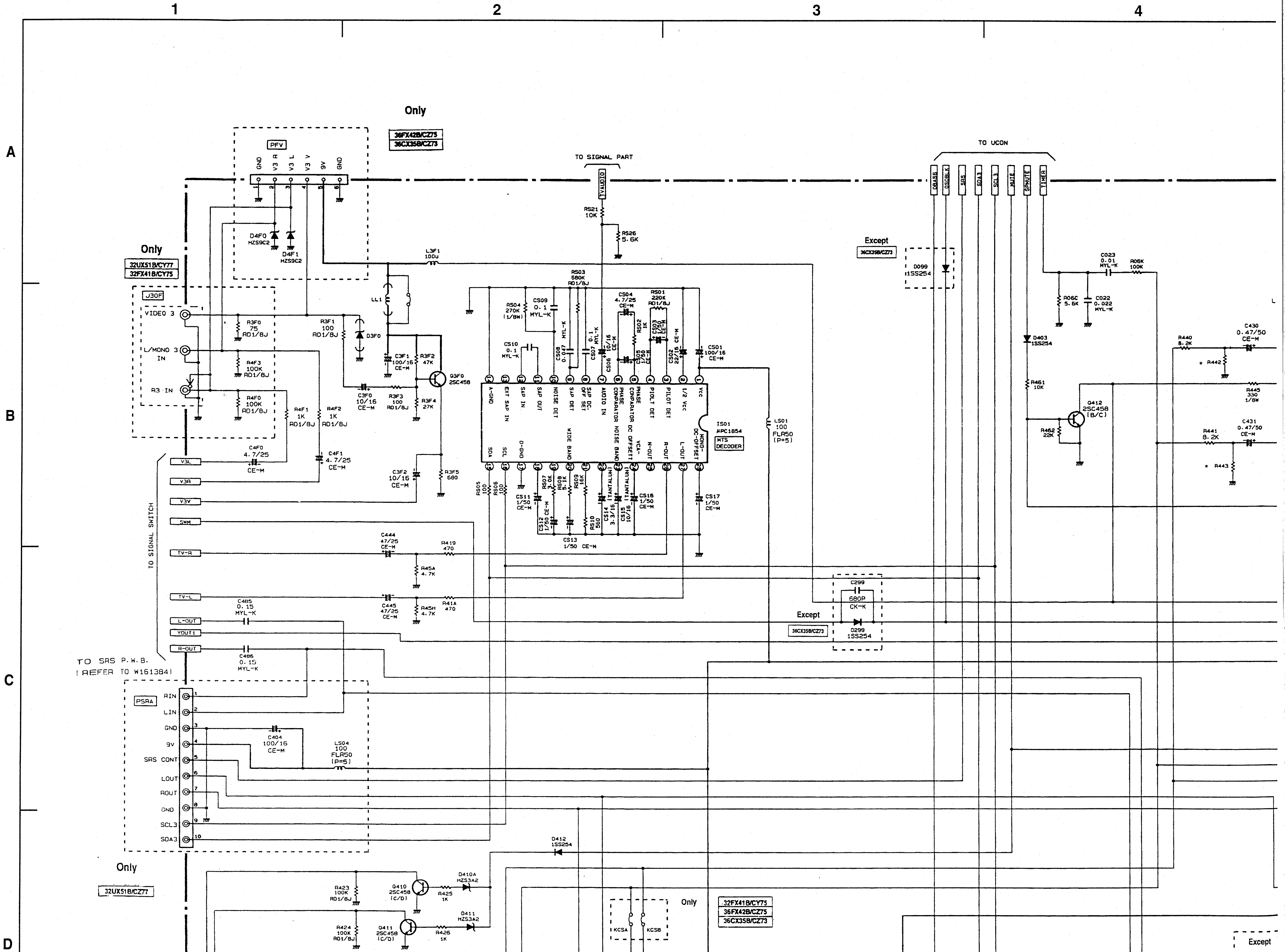
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

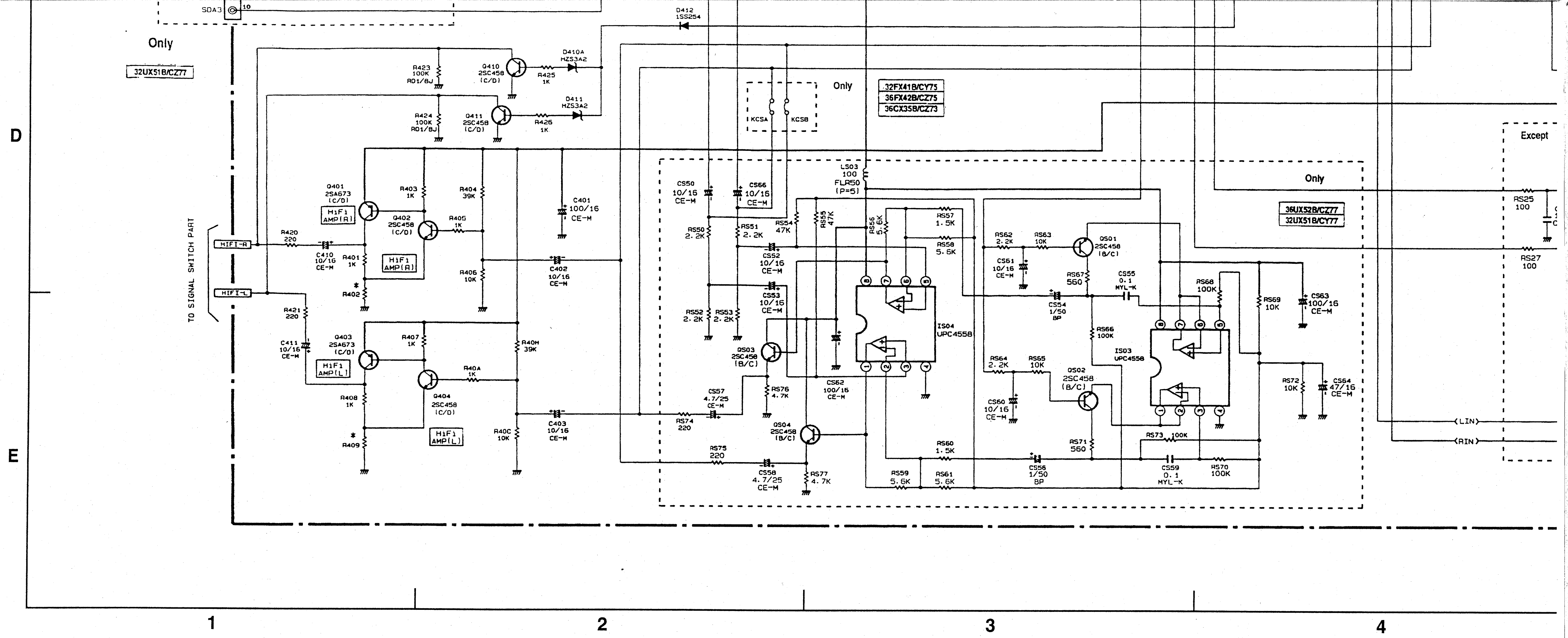
CIRCUIT No.	Pin No.	DC Voltage Vdc
Q101	B	4
	C	9
	E	3.5
Q151	B	0.6
	C	0
	E	0
Q152	B	4.5
	C	5
	E	5
Q153	B	8
	C	0
	E	5
Q201	B	3
	C	9
	E	2
Q501	B	9.5
	C	9
	E	8
Q551	B	0
	C	5
	E	0

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75,32FX41B/CY75 AND 36CX35B/CZ73

MAIN P.W.B. AUDIO PART (2/3)

PF
an
thr


1
2
3
4
A
B
C
D
Only
36FX42B/CZ75
36CX35B/CZ73
PFV
GND
V3 R
V3 L
V3 V
9V
GND
D4F0
HZS9C2
D4F1
HZS9C2
Only
32UX51B/CY77
32FX41B/CY75
J30F
VIDEO 3
L/MONO 3
IN
R3 IN
R3F0
75
RD1/8J
R4F3
100K
RD1/8J
R4F0
100K
RD1/8J
R4F1
1K
RD1/8J
R4F2
1K
RD1/8J
R3F1
100
RD1/8J
D3F0
L3F1
100u
LL1
C3F1
100/16
CE-M
R3F2
47K
Q3F0
2SC458
C3F0
10/16
CE-M
R3F3
100
RD1/8J
R3F4
27K
C4F0
4.7/25
CE-M
C4F1
4.7/25
CE-M
C3F2
10/16
CE-M
R3F5
680
TO SIGNAL PART
TVAUDIO
RS21
10K
RS26
5.6K
RS03
680K
RD1/8J
RS04
270K
(1/8W)
CS09
0.1
MYL-K
CS04
4.7/25
CE-M
RS01
220K
RD1/8J
CS10
0.1
MYL-K
CS08
0.047
MYL-K
CS07
0.1
MYL-K
CS06
10/16
CE-M
RS02
1K
CS03
CS05
CS02
22/16
CE-M
CS01
100/16
CE-M
A-GND
EXT SAP IN
SAP IN
SAP OUT
NOISE DET
SAP DET
SAP DC OFF SET
AUDIO IN
PHASE COMPARATOR NOISE BAND
PHASE COMPARATOR DC OFFSET
VCA-
PILOT DET
PILOT DET
1/2 Vcc
Vcc
SDA
SCL
D-GND
WIDE BAND
N-OUT
R-OUT
L-OUT
MONO-DC-OFFSET
IS01
μPC1854
MTS DECODER
LS01
100
FLR50
(P=5)
RS05
100
RS06
100
CS11
1/50
CE-M
RS07
3.0K
RS08
5.1K
RS09
16K
CS14
3.3/16
(TANTALUM)
CS15
10/16
(TANTALUM)
CS16
1/50
CE-M
CS17
1/50
CE-M
CS12
1/50 CE-M
RS10
560
CS13
1/50 CE-M
TO SIGNAL SWITCH
V3L
V3R
V3V
SMM
TV-R
TV-L
L-OUT
YOUT1
R-OUT
C444
47/25
CE-M
R419
470
R45A
4.7K
C445
47/25
CE-M
R45H
4.7K
R41A
470
C485
0.15
MYL-K
C486
0.15
MYL-K
TO SRS P.W.B.
(REFER TO W161384)
PSRA
RIN
LIN
GND
9V
SRS CONT
LOUT
ROUT
GND
SCL3
SDA3
C404
100/16
CE-M
LS04
100
FLR50
(P=5)
TO UCON
DBASS
OSDBLK
SRS
SDA3
SCL3
MUTE
SPMUTE
TIMER
Except
36CX35B/CZ73
D099
1SS254
C023
0.01
MYL-K
R06K
100K
R06C
5.6K
C022
0.022
MYL-K
D403
1SS254
R451
10K
Q412
2SC458
(B/C)
R452
22K
R440
8.2K
R442
C430
0.47/50
CE-M
R445
330
1/8W
R441
8.2K
C431
0.47/50
CE-M
R443
Except
36CX35B/CZ73
C299
680P
CK-K
D299
1SS254
D412
1SS254
Only
32UX51B/CZ77
R423
100K
RD1/8J
Q410
2SC458
(C/D)
D410A
HZS3A2
R425
1K
R424
100K
RD1/8J
Q411
2SC458
(C/D)
D411
HZS3A2
R426
1K
KCSA
KCSB
Only
32FX41B/CY75
36FX42B/CZ75
36CX35B/CZ73
Except


SDA3
10
Only
32UX51B/CZ77
D412
1SS254
R423
100K
RD1/8J
Q410
2SC458
(C/D)
R425
1K
D410A
HZS3A2
R424
100K
RD1/8J
Q411
2SC458
(C/D)
R426
1K
D411
HZS3A2
Only
32FX41B/CY75
36FX42B/CZ75
36CX35B/CZ73
KCSA
KCSB
D
E
TO SIGNAL SWITCH PART
HIFI-R
HIFI-L
R420
220
C410
10/16
CE-M
R401
1K
R402
*
Q401
2SA673
(C/D)
HiFi
AMP(R)
Q402
2SC458
(C/D)
HiFi
AMP(R)
R403
1K
R404
39K
R405
1K
R406
10K
C401
100/16
CE-M
C402
10/16
CE-M
R421
220
C411
10/16
CE-M
Q403
2SA673
(C/D)
HiFi
AMP(L)
R407
1K
R408
1K
R409
*
Q404
2SC458
(C/D)
HiFi
AMP(L)
R40A
1K
R40H
39K
R40C
10K
C403
10/16
CE-M
CS50
10/16
CE-M
CS66
10/16
CE-M
LS03
100
FLR50
(P=5)
RS50
2.2K
RS51
2.2K
RS54
47K
RS55
47K
RS56
5.6K
RS57
1.5K
RS58
5.6K
CS52
10/16
CE-M
CS53
10/16
CE-M
RS52
2.2K
RS53
2.2K
QS03
2SC458
(B/C)
IS04
UPC4558
CS62
100/16
CE-M
RS76
4.7K
CS57
4.7/25
CE-M
RS74
220
QS04
2SC458
(B/C)
RS75
220
CS58
4.7/25
CE-M
RS77
4.7K
RS59
5.6K
RS60
1.5K
RS61
5.6K
RS62
2.2K
RS63
10K
CS61
10/16
CE-M
QS01
2SC458
(B/C)
RS67
560
CS54
1/50
BP
CS55
0.1
MYL-K
RS66
100K
IS03
UPC4558
RS68
100K
RS69
10K
CS63
100/16
CE-M
RS64
2.2K
RS65
10K
QS02
2SC458
(B/C)
CS60
10/16
CE-M
RS71
560
CS56
1/50
BP
RS73
100K
CS59
0.1
MYL-K
RS70
100K
RS72
10K
CS64
47/16
CE-M
Only
36UX52B/CZ77
32UX51B/CY77
Except
RS25
100
RS27
100
LIN
RIN
1
2
3
4

CIRCUIT No.	Pin No.	DC Voltage Vdc
IS01	1	9
	2	4.5
	3	4.5
	4	4.5
	5	4.5
	6	4.5
	7	4.5
	8	4.5
	9	6
	10	0.5
	11	3
	12	4.5
	13	4.5
	14	0
	15	5
	16	4
	17	0
	18	4.5
	19	4.5
	20	4.5
	21	1
	22	5
	23	5
	24	4.5
	25	4.5
	26	4.5
	27	4.5
	28	4.5

CIRCUIT No.	Pin No.	DC Voltage Vdc
Q411	B	0
	C	0
	E	0
Q412	B	0
	C	9
	E	0
QS01	B	0
	C	4.5
	E	4.5
QS02	B	0
	C	4.5
	E	4.5
QS03	B	4.5
	C	9
	E	4
QS04	B	4.5
	C	9
	E	4

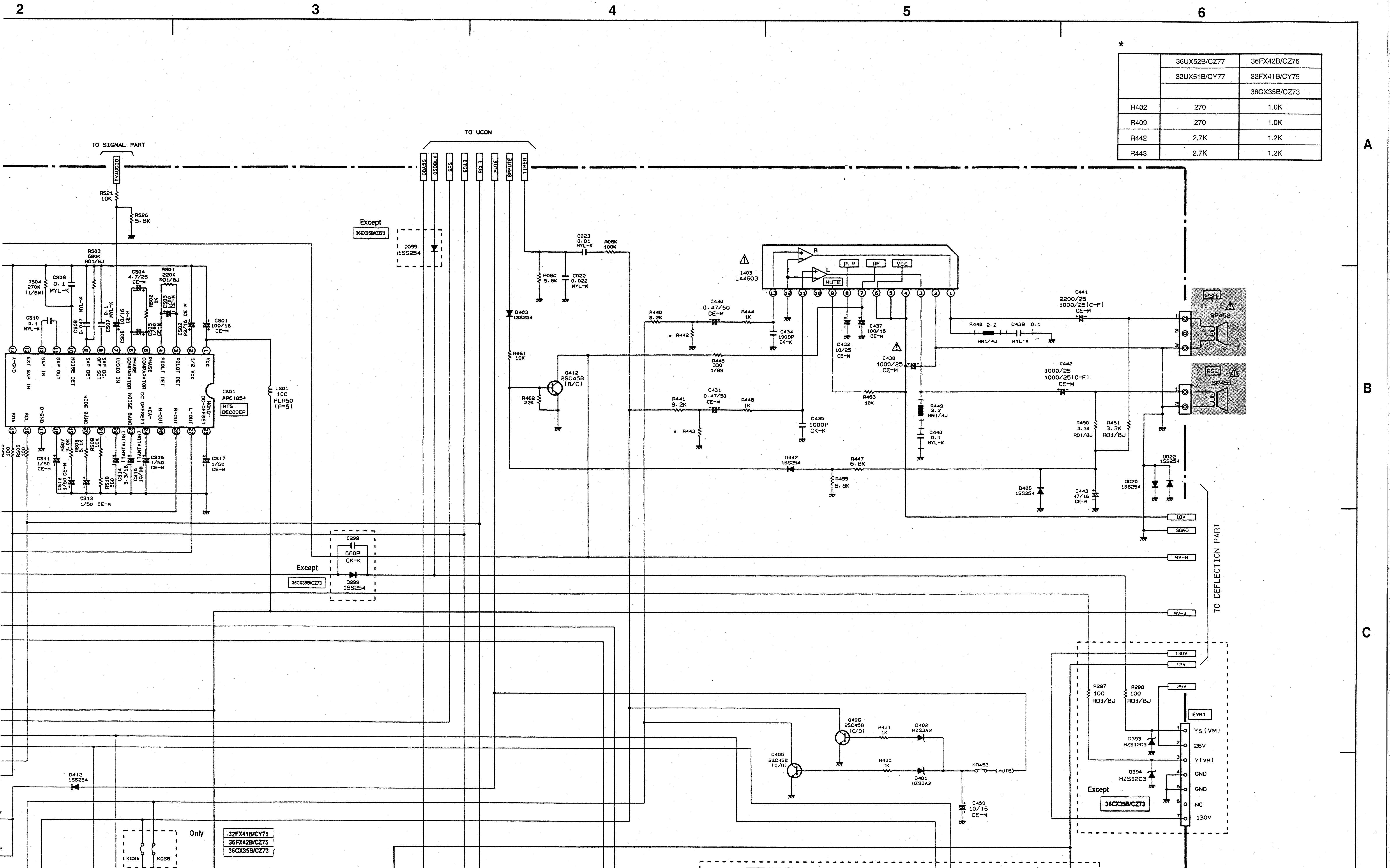
CIRCUIT No.	Pin No.	DC Voltage Vdc
Q3F0	B	3
	C	8
	E	2
Q401	B	11
	C	7.5
	E	12
Q402	B	2.5
	C	11
	E	1.5
Q403	B	11
	C	7.5
	E	12
Q404	B	2.5
	C	11
	E	2
Q405	B	0
	C	0
	E	0
Q406	B	0
	C	0
	E	0
Q410	B	0
	C	0
	E	0

CIRCUIT No.	Pin No.	DC Volt Vdc
I403	1	[illegible]
	2	[illegible]
	3	[illegible]
	4	1
	5	1
	6	1
	7	[illegible]
	8	1
	9	[illegible]
	10	[illegible]
	11	1.
	12	[illegible]
	13	1.

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75,32FX41B/CY75 AND 36CX35B/CZ73

MAIN P.W.B. AUDIO PART (2/3)

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



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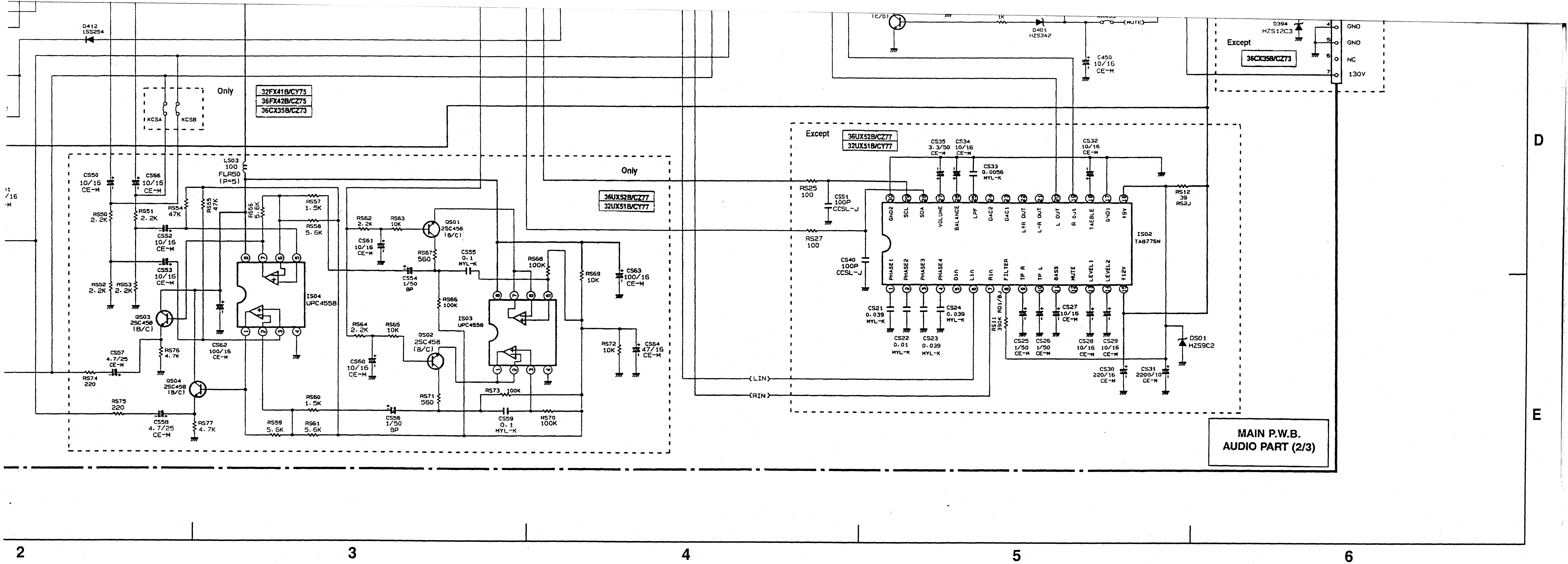
	36UX52B/CZ77	36FX42B/CZ75
	32UX51B/CY77	32FX41B/CY75
		36CX35B/CZ73
R402	270	1.0K
R409	270	1.0K
R442	2.7K	1.2K
R443	2.7K	1.2K

2
3
4
5
6
A
B
C
TO SIGNAL PART
TVAUDIO
R521 10K
R526 5.6K
TO UCON
DBASS
DSOBLK
SDS
SDA3
SCL3
MUTE
SPHOTE
TIMER
Except 36CX35B/CZ73
D099 1SS254
R503 680K RD1/8J
R504 270K (1/8W)
C509 0.1 MYL-K
C510 0.1 MYL-K
C504 4.7/25 CE-M
R501 220K RD1/8J
R502 1K
C501 100/16 CE-M
I501 μPC1854 MTS DECODER
A-GND
EXT SAP IN
SAP IN
SAP OUT
NOISE DET
SAP DET
SAP DC OFF SET
AUDIO IN
PHASE COMPARATOR NOISE BAND
PHASE COMPARATOR DC OFFSET
PILOT DET
1/2 VCC
VCC
SDA
SCL
D-GND
WIDE BAND
VCA-
N-OUT
R-OUT
L-OUT
MONO-DC-OFFSET
L501 100 FLR50 (P=5)
C511 1/50 CE-M
C512 1/50 CE-M
C513 1/50 CE-M
C516 1/50 CE-M
C517 1/50 CE-M
R510 560
C023 0.01 MYL-K
R06K 100K
R06C 5.6K
C022 0.022 MYL-K
D403 1SS254
R461 10K
Q412 2SC458 (B/C)
R462 22K
I403 LA4603
P.P
RF
Vcc
MUTE
R440 8.2K
R442
C430 0.47/50 CE-M
R444 1K
C434 1000P CK-K
R445 330 1/8W
R441 8.2K
R443
C431 0.47/50 CE-M
R446 1K
C435 1000P CK-K
C432 10/25 CE-M
C437 100/16 CE-M
C438 1000/25 CE-M
R463 10K
R449 2.2 RN1/4J
C440 0.1 MYL-K
C441 2200/25 1000/25(C-F) CE-M
R448 2.2 RN1/4J
C439 0.1 MYL-K
C442 1000/25 1000/25(C-F) CE-M
PSR SP452
PSL SP451
R450 3.3K RD1/8J
R451 3.3K RD1/8J
D442 1SS254
R447 6.8K
R455 6.8K
D406 1SS254
C443 47/16 CE-M
D020 1SS254
D022 1SS254
18V
SGND
9V-B
9V-A
130V
12V
25V
TO DEFLECTION PART
C299 680P CK-K
D299 1SS254
Except 36CX35B/CZ73
R297 100 RD1/8J
R298 100 RD1/8J
EVM1
YS(VM)
26V
Y(VM)
GND
NC
130V
D393 HZS12C3
D394 HZS12C3
Except 36CX35B/CZ73
Q406 2SC458 (C/D)
R431 1K
D402 HZS3A2
Q405 2SC458 (C/D)
R430 1K
D401 HZS3A2
KR453
MUTE
C450 10/16 CE-M
D412 1SS254
Only 32FX41B/CY75 36FX42B/CZ75 36CX35B/CZ73
KCSA
KCSB


D412
1SS254
Only
KCSA
KCSB
32FX41B/CY75
36FX42B/CZ75
36CX35B/CZ73
LS03
100
FLR50
(P=5)
CS50
10/16
CE-M
CS66
10/16
CE-M
RS50
2.2K
RS51
2.2K
RS54
47K
RS55
47K
RS56
5.6K
RS57
1.5K
RS58
5.6K
CS52
10/16
CE-M
CS53
10/16
CE-M
RS52
2.2K
RS53
2.2K
QS03
2SC458
(B/C)
IS04
UPC4558
CS62
100/16
CE-M
RS76
4.7K
CS57
4.7/25
CE-M
RS74
220
QS04
2SC458
(B/C)
RS75
220
CS58
4.7/25
CE-M
RS77
4.7K
RS59
5.6K
RS60
1.5K
RS61
5.6K
RS62
2.2K
RS63
10K
QS01
2SC458
(B/C)
CS61
10/16
CE-M
RS67
560
CS54
1/50
BP
CS55
0.1
MYL-K
RS66
100K
RS64
2.2K
RS65
10K
QS02
2SC458
(B/C)
CS60
10/16
CE-M
IS03
UPC4558
RS71
560
CS56
1/50
BP
RS68
100K
RS73
100K
CS59
0.1
MYL-K
RS70
100K
RS69
10K
CS63
100/16
CE-M
RS72
10K
CS64
47/16
CE-M
Only
36UX52B/CZ77
32UX51B/CY77
(C/D)
1K
D401
HZS3A2
(MUTE)
C450
10/16
CE-M
D394
HZS12C3
Except
36CX35B/CZ73
4 GND
5 GND
6 NC
7 130V
Except
36UX52B/CZ77
32UX51B/CY77
CS35
3.3/50
CE-M
CS34
10/16
CE-M
CS33
0.0056
MYL-K
CS32
10/16
CE-M
RS25
100
CS51
100P
CCSL-J
RS27
100
CS40
100P
CCSL-J
GND2
SCL
SDA
VOLUME
BALANCE
LPF
DAC2
DAC1
L+R OUT
L-R OUT
L OUT
R out
TREBLE
GND1
+9V
IS02
TA8776N
PHASE1
PHASE2
PHASE3
PHASE4
Din
Lin
Rin
FILTER
TP R
TP L
BASS
MUTE
LEVEL1
LEVEL2
+12V
RS12
39
RS2J
CS21
0.039
MYL-K
CS22
0.01
MYL-K
CS23
0.039
MYL-K
CS24
0.039
MYL-K
RS11
390K RD1/8J
CS25
1/50
CE-M
CS26
1/50
CE-M
CS27
10/16
CE-M
CS28
10/16
CE-M
CS29
10/16
CE-M
CS30
220/16
CE-M
CS31
2200/10
CE-M
DS01
HZS9C2
(LIN)
(RIN)
D
E
2
3
4
5
6

**MAIN P.W.B.
AUDIO PART (2/3)**

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT No.	Pin No.	DC Voltage Vdc
Q411	B	0
	C	0
	E	0
Q412	B	0
	C	9
	E	0
QS01	B	0
	C	4.5
	E	4.5
QS02	B	0
	C	4.5
	E	4.5
QS03	B	4.5
	C	9
	E	4
QS04	B	4.5
	C	9
	E	4

CIRCUIT No.	Pin No.	DC Voltage Vdc
Q3F0	B	3
	C	8
	E	2
Q401	B	11
	C	7.5
	E	12
Q402	B	2.5
	C	11
	E	1.5
Q403	B	11
	C	7.5
	E	12
Q404	B	2.5
	C	11
	E	2
Q405	B	0
	C	0
	E	0
Q406	B	0
	C	0
	E	0
Q410	B	0
	C	0
	E	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
I403	1	9
	2	0
	3	9
	4	18
	5	18
	6	18
	7	9
	8	12
	9	2
	10	0
	11	1.5
	12	0
	13	1.5

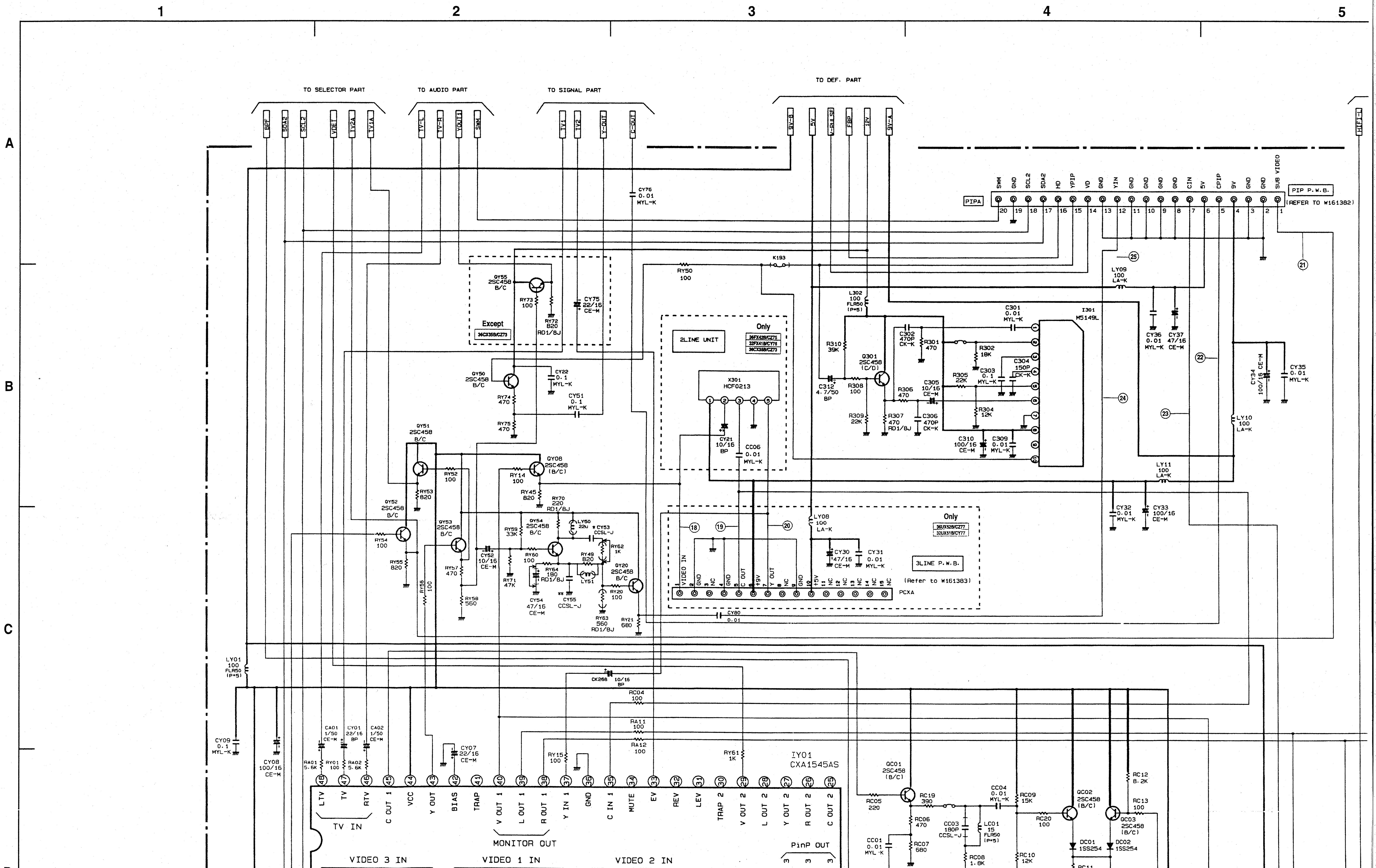
CIRCUIT No.	Pin No.	DC Voltage Vdc
IS03	1	4.5
	2	4.5
	3	4.5
	4	0
	5	4.4
	6	4.5
	7	4.5
	8	9

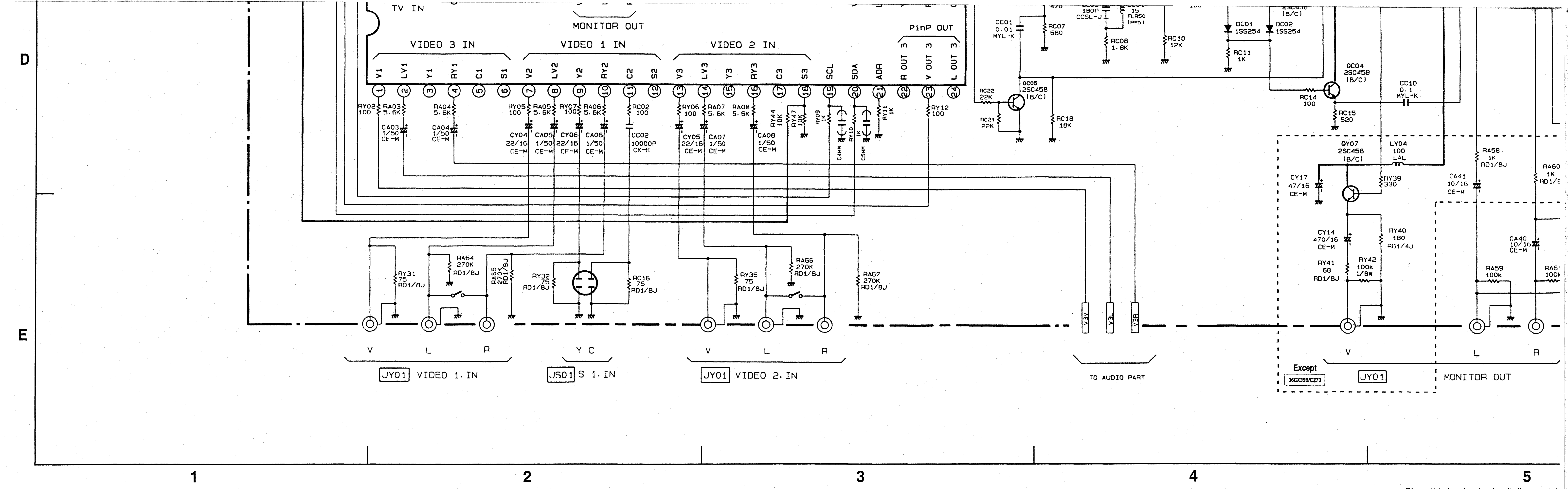
CIRCUIT No.	Pin No.	DC Voltage Vdc
IS04	1	4.5
	2	4.5
	3	4.5
	4	0
	5	4.5
	6	4.5
	7	4.5
	8	9

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

MAIN P.W.B. SIGNAL SWITCH PART (3/3)

PRODUCT SAFETY NOTE: Components ma
any of these components, read carefully the
through improper servicing.


1
2
3
4
5
A
B
C
TO SELECTOR PART
BPF
SDA2
SCL2
VDET
TV2A
TV1A
TO AUDIO PART
TV-L
TV-R
YOUT1
SWM
TO SIGNAL PART
TV1
TV2
Y-OUT
C-OUT
TO DEF. PART
9V-B
5V
V-PULSE
FBP
12V
9V-A
HIFI-L
CY76 0.01 MYL-K
SWM GND SCL2 SDA2 HD YPIP VD GND YIN GND GND GND GND CIN 5V CPIP 9V GND GND SUB VIDEO
PIPA
PIP P.W.B.
(REFER TO W161382)
QY55 2SC458 B/C
RY73 100
RY72 820 RD1/8J
CY75 22/16 CE-M
Except 36CX35B/CZ73
RY50 100
K193
2LINE UNIT
Only 36FX42B/CZ75 32FX41B/CY75 36CX35B/CZ73
X301 HCF0213
CY21 10/16 BP
CC06 0.01 MYL-K
L302 100 FLR50 (P=5)
R310 39K
Q301 2SC458 (C/D)
C312 4.7/50 BP
R308 100
R309 22K
C302 470P CK-K
R301 470
R306 470
R307 470 RD1/8J
C305 10/16 CE-M
C306 470P CK-K
R302 18K
R305 22K
C303 0.1 MYL-K
C304 150P CK-K
R304 12K
C310 100/16 CE-M
C309 0.01 MYL-K
C301 0.01 MYL-K
I301 M5149L
LY09 100 LA-K
CY36 0.01 MYL-K
CY37 47/16 CE-M
CY34 100/16 CE-M
CY35 0.01 MYL-K
LY10 100 LA-K
LY11 100 LA-K
CY32 0.01 MYL-K
CY33 100/16 CE-M
QY50 2SC458 B/C
CY22 0.1 MYL-K
RY74 470
CY51 0.1 MYL-K
RY75 470
QY51 2SC458 B/C
RY52 100
RY53 820
QY08 2SC458 (B/C)
RY14 100
RY45 820
RY70 220 RD1/8J
QY52 2SC458 B/C
RY54 100
RY55 820
QY53 2SC458 B/C
RY57 470
RY58 560
RY56 100
CY52 10/16 CE-M
RY59 33K
QY54 2SC458 B/C
RY60 100
RY71 47K
RY64 180 RD1/8J
CY54 47/16 CE-M
LY50 22u
CY53 CCSL-J
RY62 1K
RY49 820
LY51
CY55 CCSL-J
QY20 2SC458 B/C
RY20 100
RY63 560 RD1/8J
RY21 680
CY80 0.01
LY08 100 LA-K
CY30 47/16 CE-M
CY31 0.01 MYL-K
Only 36UX52B/CZ77 32UX51B/CY77
3LINE P.W.B.
(Refer to W161383)
VIDEO IN GND NC GND C OUT 9V Y OUT NC GND 5V NC NC NC NC NC NC
PCXA
18 19 20 21 22 23 24 25
LY01 100 FLR50 (P=5)
CK268 10/16 BP
RC04 100
RA11 100
RA12 100
CY09 0.1 MYL-K
CY08 100/16 CE-M
CA01 1/50 CE-M
CY01 22/16 BP
CA02 1/50 CE-M
RA01 5.6K
RY01 100
RA02 5.6K
CY07 22/16 CE-M
RY15 100
RY61 1K
IY01 CXA1545AS
LTV TV RTV C OUT 1 VCC Y OUT BIAS TRAP V OUT 1 L OUT 1 R OUT 1 Y IN 1 GND C IN 1 MUTE EV REV LEV TRAP 2 V OUT 2 L OUT 2 Y OUT 2 R OUT 2 C OUT 2
TV IN
MONITOR OUT
VIDEO 3 IN
VIDEO 1 IN
VIDEO 2 IN
PinP OUT
QC01 2SC458 (B/C)
RC05 220
RC19 390
RC06 470
RC07 680
CC01 0.01 MYL-K
CC03 180P CCSL-J
LC01 15 FLR50 (P=5)
CC04 0.01 MYL-K
RC09 15K
RC08 1.8K
RC10 12K
RC20 100
QC02 2SC458 (B/C)
QC03 2SC458 (B/C)
DC01 1SS254
DC02 1SS254
RC12 8.2K
RC13 100


D
E
TV IN
MONITOR OUT
PinP OUT
VIDEO 3 IN
VIDEO 1 IN
VIDEO 2 IN
V1 LV1 Y1 RY1 C1 S1 V2 LV2 Y2 RY2 C2 S2 V3 LV3 Y3 RY3 C3 S3 SCL SDA ADR R OUT 3 V OUT 3 L OUT 3
QC05 2SC458 (B/C)
QC04 2SC458 (B/C)
QY07 2SC458 (B/C)
DC01 1SS254
DC02 1SS254
JY01 VIDEO 1. IN
JS01 S 1. IN
JY01 VIDEO 2. IN
TO AUDIO PART
V3V V3L V3R
Except
36CX35B/C273
JY01
MONITOR OUT
V L R
Y C
1
2
3
4
5

- Since this is a basic circuit diagram, th
- All DC voltage to be measured with a t

CIRCUIT No.	Pin No.	DC Voltage Vdc
IY01	1	4.1
	2	4.1
	3	4.1
	4	4.1
	5	4.1
	6	0.15
	7	4.1
	8	4.1
	9	4.1
	10	4.1
	11	4.1
	12	0.14
	13	4.1
	14	4.1
	15	4.1
	16	4.1
	17	4.1
	18	3.82
	19	4.3
	20	4.3
	21	0
	22	4.1
	23	4
	24	4.1
	25	4
	26	4.1
	27	4
	28	4.1
	29	4
	30	4
	31	4.1
IY01	32	4.1
	33	4.1
	34	0
	35	4.1
	36	0
	37	4.1
	38	4.1
	39	4.1
	40	4
	41	4.1
	42	4.1
	43	4
	44	8
	45	4
	46	4.1
	47	4.1
	48	4.1

CIRCUIT No.	Pin No.	DC Voltage Vdc
I301	1	5
	2	10
	3	6
	4	5
	5	4
	6	5
	7	0
	8	12
	9	9
	10	9

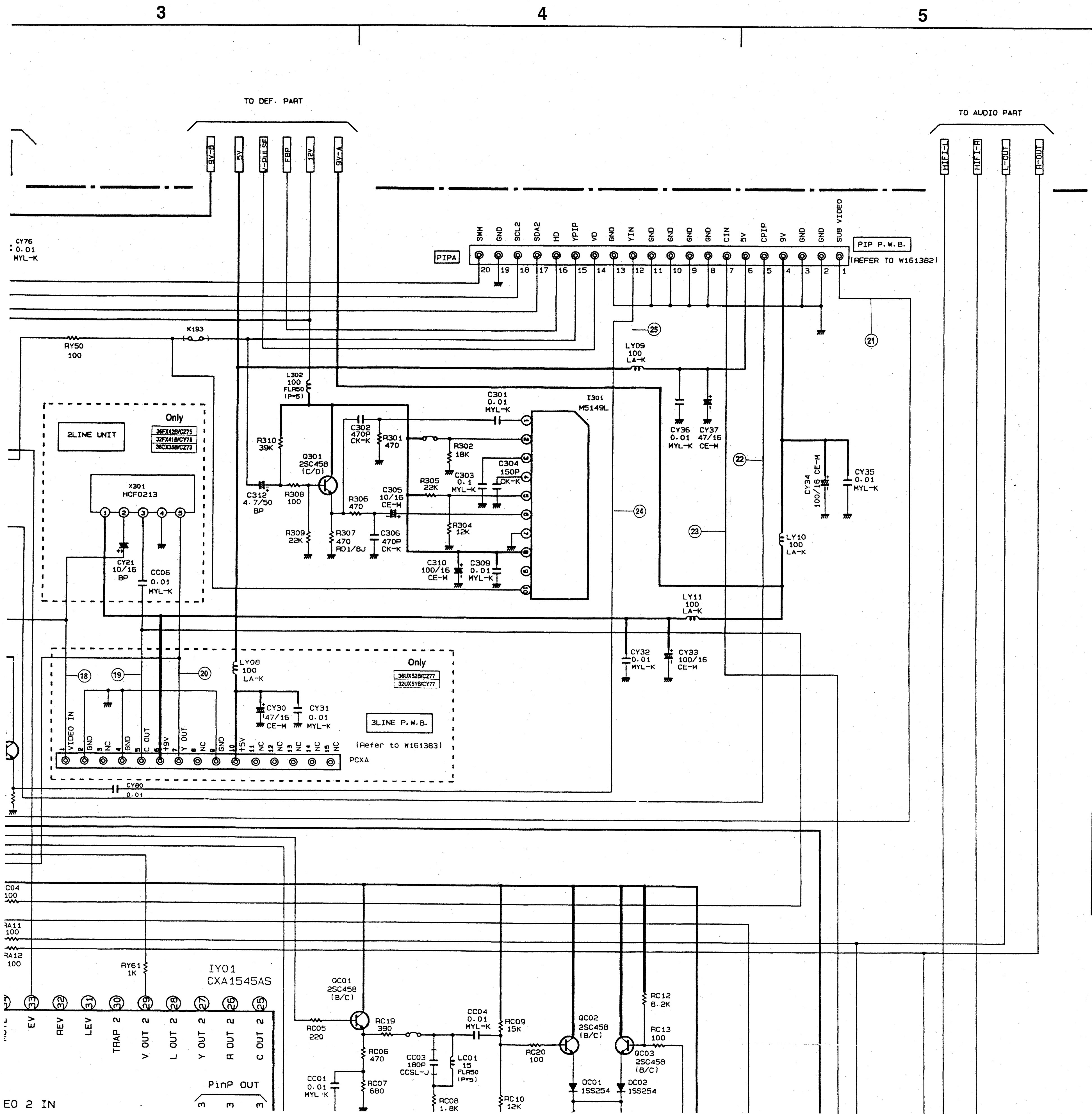
CIRCUIT No.	Pin No.	DC Voltage Vdc
QY07	B	4
	C	8
	E	3.5
QY08	B	4
	C	8
	E	3.5
QY20	B	2.5
	C	8
	E	2
QY50	B	9
	C	12
	E	8
QY51	B	3.5
	C	8
	E	3
QY52	B	4
	C	8
	E	3.5
QY53	B	4
	C	8
	E	3.5
QY54	B	3.5
	C	5
	E	2.5
QY55	B	1.5
	C	12
	E	1
QC01	B	4
	C	8
	E	3.5

QC02
QC03
QC04
QC05
Q301

CUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

MAIN P.W.B. SIGNAL SWITCH PART (3/3)

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


3
4
5
6
A
B
C
TO DEF. PART
9V-B
5V
V-PULSE
FBP
12V
9V-A
TO AUDIO PART
HIFI-L
HIFI-R
L-OUT
R-OUT
PIPA
PIP P.W.B.
(REFER TO W161382)
SWM GND SCL2 SDA2 HD YPIP VD GND YIN GND GND GND GND CIN 5V CPIP 9V GND GND SUB VIDEO
CY76 0.01 MYL-K
RY50 100
K193
L302 100 FLR50 (P=5)
LY09 100 LA-K
C301 0.01 MYL-K
I301 M5149L
2LINE UNIT
Only
36FX42B/CZ75
32FX41B/CY75
36CX35B/CZ73
X301 HCF0213
R310 39K
C302 470P CK-K
R301 470
Q301 2SC458 (C/D)
R302 18K
C303 0.1 MYL-K
C304 150P CK-K
R305 22K
C305 10/16 CE-M
R306 470
C312 4.7/50 BP
R308 100
R309 22K
R307 470 RD1/8J
C306 470P CK-K
R304 12K
C310 100/16 CE-M
C309 0.01 MYL-K
CY36 0.01 MYL-K
CY37 47/16 CE-M
CY34 100/16 CE-M
CY35 0.01 MYL-K
LY10 100 LA-K
LY11 100 LA-K
CY21 10/16 BP
CC06 0.01 MYL-K
CY32 0.01 MYL-K
CY33 100/16 CE-M
LY08 100 LA-K
Only
36UX52B/CZ77
32UX51B/CY77
CY30 47/16 CE-M
CY31 0.01 MYL-K
3LINE P.W.B.
(Refer to W161383)
VIDEO IN GND NC C OUT +9V Y OUT NC GND +5V NC NC NC NC NC
PCXA
CY80 0.01
CC04 100
RA11 100
RA12 100
RY61 1K
IY01 CXA1545AS
EV REV LEV TRAP 2 V OUT 2 L OUT 2 Y OUT 2 R OUT 2 C OUT 2
PinP OUT
EO 2 IN
QC01 2SC458 (B/C)
RC05 220
RC19 390
RC06 470
RC07 680
CC01 0.01 MYL-K
CC03 180P CCSL-J
LC01 15 FLR50 (P=5)
CC04 0.01 MYL-K
RC08 1.8K
RC09 15K
RC10 12K
RC20 100
QC02 2SC458 (B/C)
QC03 2SC458 (B/C)
DC01 1SS254
DC02 1SS254
RC12 8.2K
RC13 100
⑱ ⑲ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕

*

	36UX52B/CZ77 36FX42B/CZ75 32UX51B/CY77 32FX41B/CY75	36CX35B/CZ73
CY53	39P	33P

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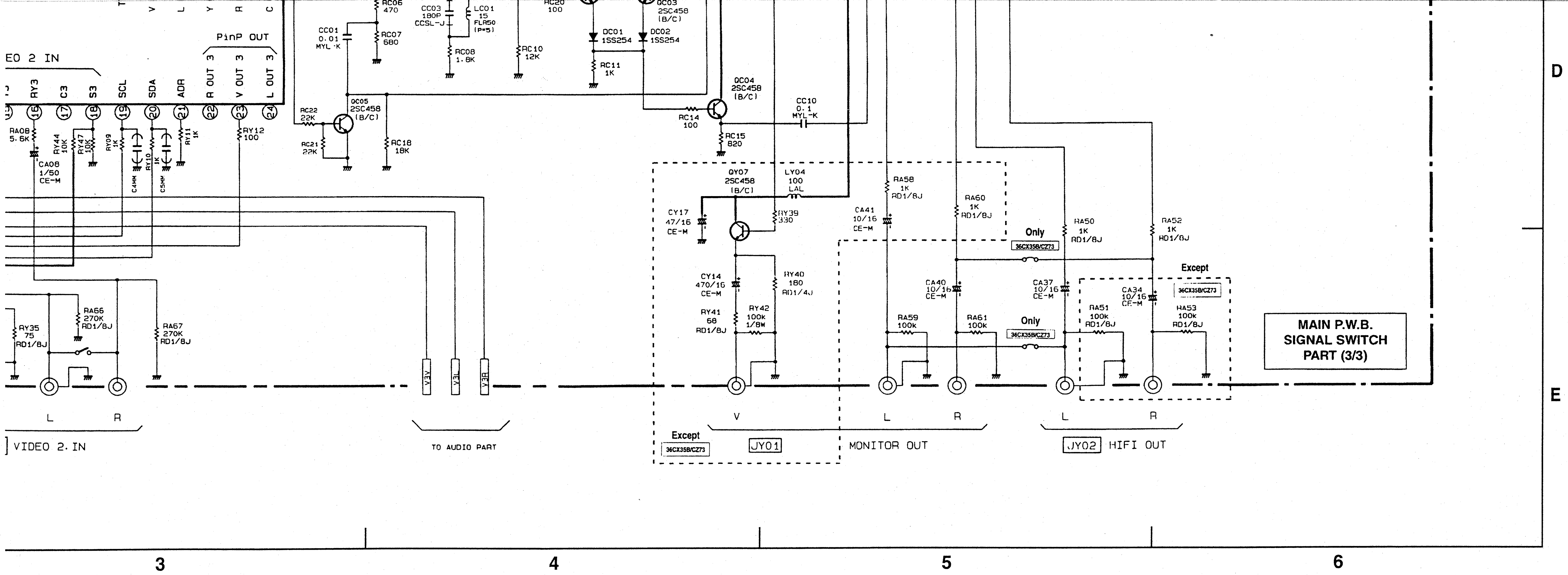
	36UX52B/CZ77 36CX35B/CZ73 36FX42B/CZ75 32FX41B/CY75	32UX51B/CY77
CY55	39P	180P


PinP OUT
EO 2 IN
RY3
C3
S3
SCL
SDA
ADR
R OUT 3
V OUT 3
L OUT 3
RA08 5.6K
RY44 10K
RY47 10K
RY09 1K
RY10 1K
RY11 1K
C4MH
C5MH
CA08 1/50 CE-M
RY12 100
RC06 470
RC07 680
CC01 0.01 MYL-K
CC03 180P CCSL-J
LC01 15 FLR50 (P=5)
RC08 1.8K
RC20 100
RC10 12K
DC01 1SS254
DC02 1SS254
RC11 1K
QC03 2SC458 (B/C)
QC04 2SC458 (B/C)
QC05 2SC458 (B/C)
RC22 22K
RC21 22K
RC18 18K
RC14 100
RC15 820
CC10 0.1 MYL-K
QY07 2SC458 (B/C)
LY04 100 LAL
CY17 47/16 CE-M
RY39 330
CY14 470/16 CE-M
RY40 180 RD1/4J
RY41 68 RD1/8J
RY42 100k 1/8W
RA58 1K RD1/8J
RA60 1K RD1/8J
CA41 10/16 CE-M
Only
36CX35B/CZ73
RA50 1K RD1/8J
RA52 1K RD1/8J
Except
36CX35B/CZ73
CA40 10/16 CE-M
CA37 10/16 CE-M
CA34 10/16 CE-M
RA59 100k
RA61 100k
Only
36CX35B/CZ73
RA51 100k RD1/8J
RA53 100k RD1/8J
RA66 270K RD1/8J
RA67 270K RD1/8J
RY35 75 RD1/8J
V3V
V3L
V3R
L
R
VIDEO 2. IN
TO AUDIO PART
V
L
R
L
R
Except
36CX35B/CZ73
JY01
MONITOR OUT
JY02
HIFI OUT
MAIN P.W.B. SIGNAL SWITCH PART (3/3)
D
E
3
4
5
6

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT No.	Pin No.	DC Voltage Vdc
I301	1	5
	2	10
	3	6
	4	5
	5	4
	6	5
	7	0
	8	12
	9	9
	10	9

CIRCUIT No.	Pin No.	DC Voltage Vdc
QY07	B	4
	C	8
	E	3.5
QY08	B	4
	C	8
	E	3.5
QY20	B	2.5
	C	8
	E	2
QY50	B	9
	C	12
	E	8
QY51	B	3.5
	C	8
	E	3
QY52	B	4
	C	8
	E	3.5
QY53	B	4
	C	8
	E	3.5
QY54	B	3.5
	C	5
	E	2.5
QY55	B	1.5
	C	12
	E	1
QC01	B	4
	C	8
	E	3.5

QC02	B	3.5
	C	8
	E	3
QC03	B	0
	C	8
	E	0
QC04	B	2
	C	8
	E	1.5
QC05	B	0.6
	C	0
	E	0
Q301	B	4
	C	12
	E	3

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

MAIN P.W.B. SELECTOR PART

PRO
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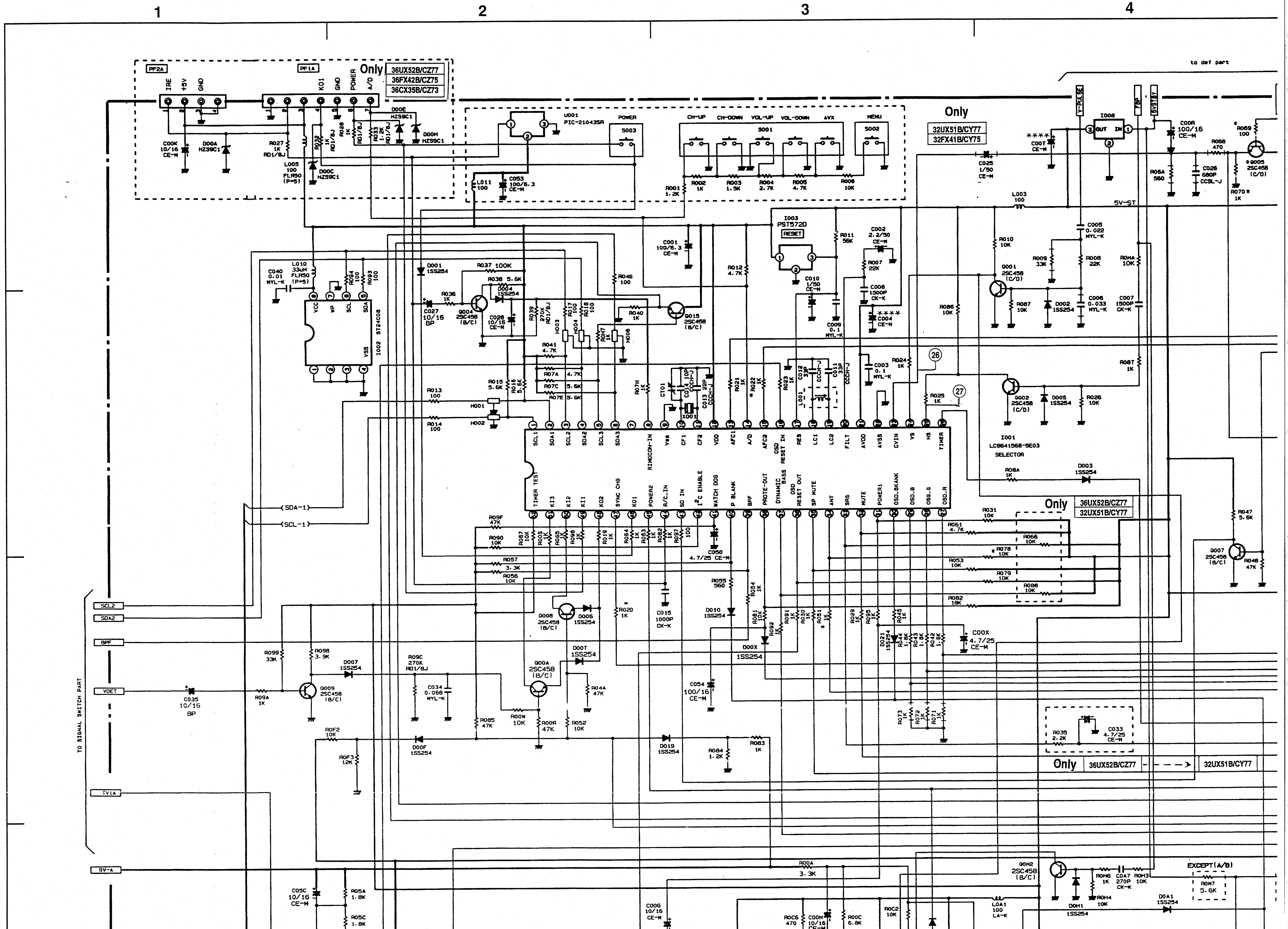
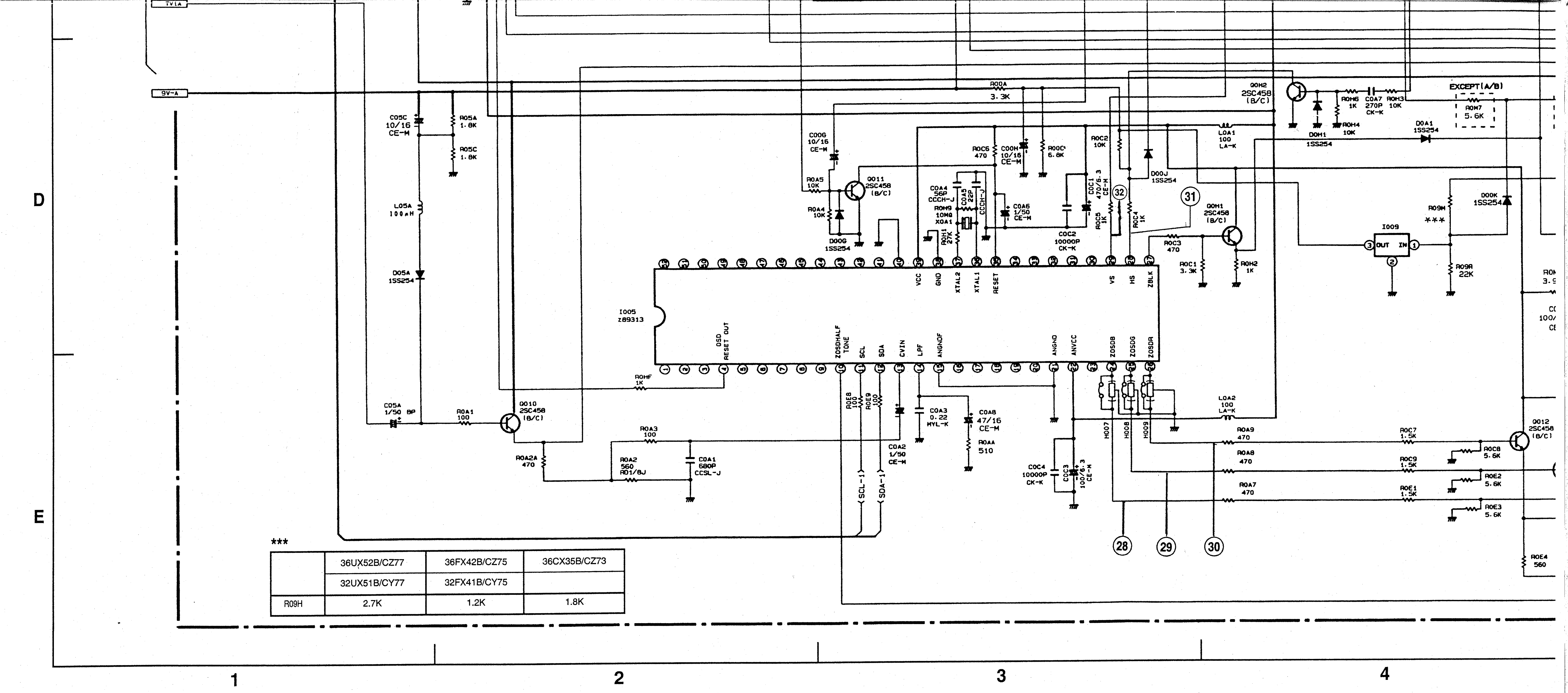

1
2
3
4
A
B
C
PF2A
PF1A
IRE
+5V
GND
KO1
POWER
A/D
Only
36UX52B/CZ77
36FX42B/CZ75
36CX35B/CZ73
U001
PIC-21043SR
POWER
S003
CH-UP
CH-DOWN
VOL-UP
VOL-DOWN
AVX
MENU
S001
S002
Only
32UX51B/CY77
32FX41B/CY75
to def part
V-PULSE
I008
FBP
5V-STBY
5V-ST
C00K 10/16 CE-M
D00A HZS9C1
D00C HZS9C1
D00E HZS9C1
D00H HZS9C1
L005 100 FLR50 (P=5)
L011 100
C053 100/6.3 CE-M
R001 1.2K
R002 1K
R003 1.5K
R004 2.7K
R005 4.7K
R006 10K
I003 PST5720
RESET
C001 100/6.3 CE-M
R011 56K
C002 2.2/50 CE-M
R007 22K
C008 1500P CK-K
C010 1/50 CE-M
C009 0.1 MYL-K
C004 CE-M
C003 0.1 MYL-K
R012 4.7K
L010 33uH FLR50 (P=5)
C040 0.01 MYL-K
VCC
WP
SCL
SDA
VSS
I002 ST24C08
D001 1SS254
R037 100K
R038 5.6K
D004 1SS254
R036 1K
C027 10/16 BP
Q004 2SC458 (B/C)
C028 10/16 CE-M
R039 270K
R046 100
Q015 2SC458 (B/C)
R041 4.7K
R07A 4.7K
R07C 5.6K
R07E 5.6K
R013 100
R014 100
H001
H002
R015 5.6K
R016 5.6K
CT01
X001
L001
I001 LC8641568-5E03 SELECTOR
SCL1
SDA1
SCL2
SDA2
SCL3
SDA3
RIMOCON-IN
Vss
CF1
CF2
VDD
AFC1
A/D
AFC2
OSD RESET IN
RES
LC1
LC2
FILT
AVDD
AVSS
CVIN
VS
HS
TIMER
TIMER TEST
KI3
KI2
KI1
KO2
SYNC CHG
KO1
POWER2
R/C.IN
SD IN
I²C ENABLE
WATCH DOG
P BLANK
BPF
PROTE-OUT
DYNAMIC BASS
OSD RESET OUT
SP MUTE
ANT
SRS
MUTE
POWER1
OSD.BKANK
OSD.B
OSD.G
OSD.R
㉖
㉗
Q001 2SC458 (C/D)
R010 10K
R009 33K
R008 22K
R0HA 10K
C005 0.022 MYL-K
C006 0.033 MYL-K
C007 1500P CK-K
D002 1SS254
Q002 2SC458 (C/D)
D005 1SS254
R026 10K
R025 1K
R024 1K
D003 1SS254
R08A 1K
C00R 100/16 CE-M
R068 470
R069 100
Q005 2SC458 (C/D)
C026 680P CCSL-J
R06A 560
R070 1K
L003 100
C025 1/50 CE-M
C00T CE-M
Only
36UX52B/CZ77
32UX51B/CY77
R031 10K
R061 4.7K
R066 10K
R078 10K
R053 10K
R079 10K
R086 10K
R082 18K
R047 5.6K
Q007 2SC458 (B/C)
R048 47K
SDA-1
SCL-1
SCL2
SDA2
BPF
VDET
TV1A
9V-A
TO SIGNAL SWITCH PART
C035 10/16 BP
R09A 1K
R099 33K
R098 3.9K
Q009 2SC458 (B/C)
D007 1SS254
R0F2 10K
R0F3 12K
R09C 270K
C034 0.068 MYL-K
D00F 1SS254
Q008 2SC458 (B/C)
D006 1SS254
Q00A 2SC458 (B/C)
D00T 1SS254
R04A 47K
R085 47K
R00W 10K
R00R 47K
R052 10K
R020 1K
C015 1000P CK-K
C050 4.7/25 CE-M
R055 560
R054 1K
D010 1SS254
D00X 1SS254
C054 100/16 CE-M
D019 1SS254
R084 1.2K
R083 1K
C00X 4.7/25 CE-M
R035 2.2K
C033 4.7/25 CE-M
Only 36UX52B/CZ77 → 32UX51B/CY77
R00A 3.3K
C05C 10/16 CE-M
R05A 1.8K
R05C 1.8K
C00G 10/16 CE-M
R0C6 470
C00H 10/16
R00C 6.8K
R0C2 10K
L0A1 100 LA-K
Q0H2 2SC458 (B/C)
R0H6 1K
C0A7 270P CK-K
R0H3 10K
R0H4 10K
D0H1 1SS254
D0A1 1SS254
EXCEPT(A/B)
R0H7 5.6K


D
E
1
2
3
4
7V1A
9V-A
C05C
10/16
CE-M
R05A
1.8K
R05C
1.8K
L05A
100μH
D05A
1SS254
C05A
1/50 BP
R0A1
100
Q010
2SC458
(B/C)
R0A2A
470
R0HF
1K
R0A3
100
R0A2
560
R01/8J
C0A1
680P
CCSL-J
I005
Z89313
OSD
RESET OUT
ZOSDHALF
TONE
SCL
SDA
CVIN
LPF
ANGNDF
ANGND
ANVCC
ZOSDB
ZOSDG
ZOSDR
VCC
GND
XTAL2
XTAL1
RESET
VS
HS
ZBLK
R0E8
100
R0E9
100
C0A2
1/50
CE-M
C0A3
0.22
MYL-K
C0A8
47/16
CE-M
R0AA
510
SCL-1
SDA-1
C0C4
10000P
CK-K
C0C3
100/6.3
CE-M
H007
H008
H009
28
29
30
31
32
R00A
3.3K
C00G
10/16
CE-M
R0A5
10K
R0A4
10K
D00G
1SS254
Q011
2SC458
(B/C)
R0C6
470
C00H
10/16
CE-M
R00C
6.8K
C0A4
56P
CCCH-J
C0A5
22P
CCCH-J
R0H9
10MΩ
X0A1
R0H1
27K
C0A6
1/50
CE-M
C0C2
10000P
CK-K
C0C1
470/6.3
CE-M
R0C2
10K
R0C5
1K
R0C4
1K
D00J
1SS254
L0A1
100
LA-K
Q0H2
2SC458
(B/C)
R0H6
1K
C0A7
270P
CK-K
R0H3
10K
R0H4
10K
D0H1
1SS254
D0A1
1SS254
EXCEPT(A/B)
R0M7
5.6K
Q0H1
2SC458
(B/C)
R0C3
470
R0C1
3.3K
R0H2
1K
I009
OUT
IN
1
2
3
R09M
***
D00K
1SS254
R09R
22K
L0A2
100
LA-K
R0A9
470
R0A8
470
R0A7
470
R0C7
1.5K
R0C9
1.5K
R0E1
1.5K
R0C8
5.6K
R0E2
5.6K
R0E3
5.6K
Q012
2SC458
(B/C)
R0E4
560

***

	36UX52B/CZ77	36FX42B/CZ75	36CX35B/CZ73
	32UX51B/CY77	32FX41B/CY75	
R09H	2.7K	1.2K	1.8K

CIRCUIT No.	Pin No.	DC Voltage Vdc
I001	1	5
	2	5
	3	5
	4	4
	5	5
	6	5
	7	0
	8	0
	9	0
	10	2
	11	2.5
	12	5
	13	3
	14	5
	15	3
	16	0
	17	5
	18	2
	19	2
	20	0
	21	5
	22	0
	23	2.5
	24	4.5
	25	4
	26	0
	27	0
	28	0
	29	0
	30	0
	31	4
	32	4
	33	5
	34	8
	35	0
	36	0
	37	7
	38	0
	39	4
	40	0
	41	0
I001	43	4.5
	44	5
	45	5
	46	5
	47	2.5
	48	5
	49	5
	50	5
	51	5
	52	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
I002	1	0
	2	0
	3	0
	4	0
	5	4.5
	6	4.5
	7	0
	8	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
I003	1	5
	2	0
	3	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
I004	1	0.2
	2	0.2
	3	0.2
	4	0.2
	5	0.2
	6	0
	7	0
	8	0
	9	3
	10	2.5
	11	5
	12	0
	13	2.5
	14	2.5
	15	0
	16	8

CIRCUIT No.	Pin No.	DC Voltage Vdc
I006	1	5
	2	0
	3	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
I008	1	12
	2	0
	3	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
U001	1	0
	2	5
	3	0

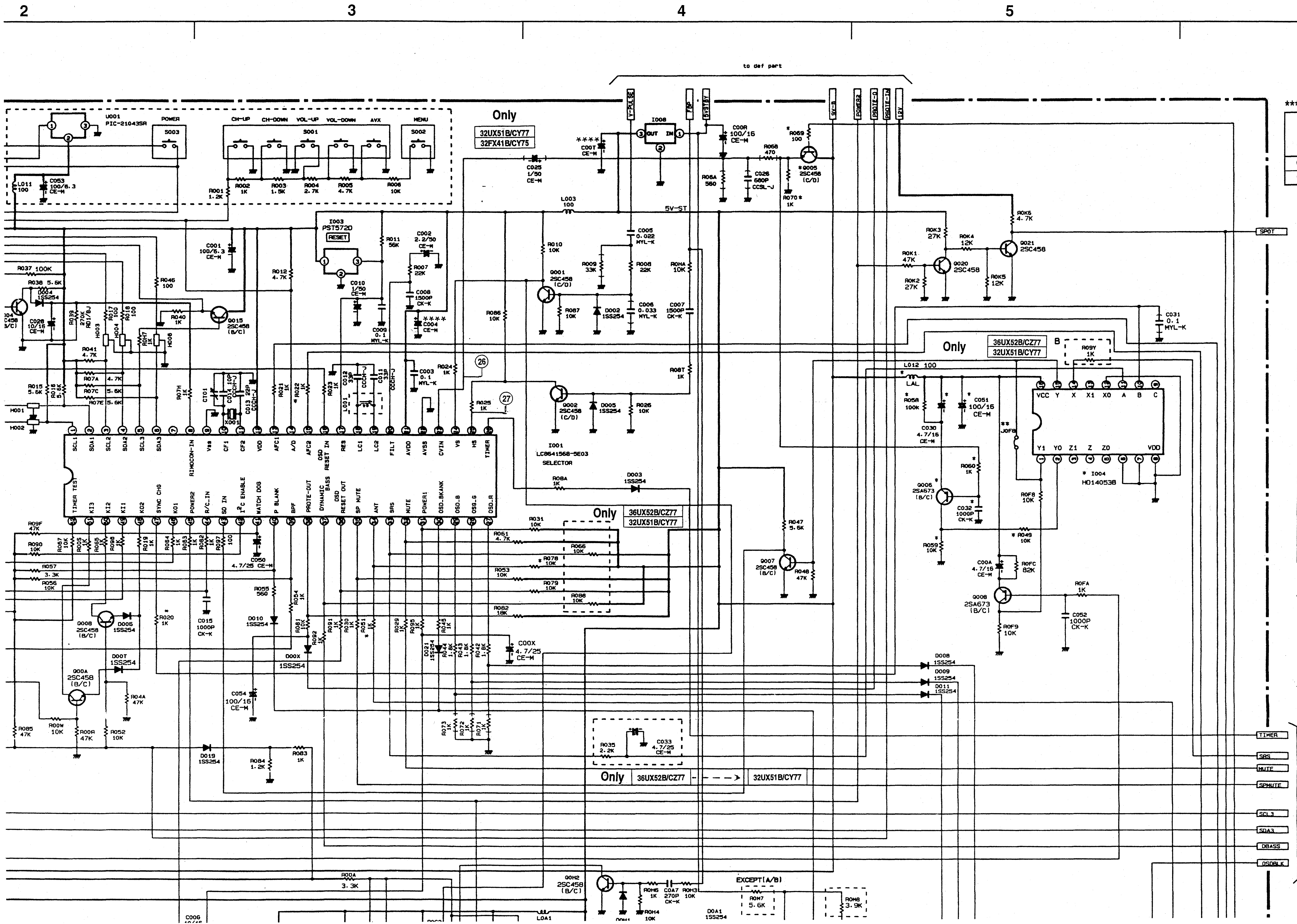
CIRCUIT No.	Pin No.	DC Voltage Vdc
I005	1	0
	2	0
	3	0
	4	0
	5	0
	6	0
	7	0
	8	0
	9	0
	10	1.5
	11	5
	12	5
	13	2
	14	1
	15	0
	16	1.5
	17	0
	18	0
	19	0
	20	0
	21	0
	22	5
	23	0
	24	0
	25	0
	26	0
	27	0
	28	4
	29	4.5
	30	0
	31	0
	32	0
	33	0
	34	0
	35	5
I005	36	1.5
	37	2
	38	0
	39	5
	40	0
	41	1
	42	0
	43	0
	44	0
	45	0
	46	0
	47	0
	48	0
	49	0
	50	0
	51	0
	52	0

CIRCUIT No.	Pin No.	DC Volt Vdc
Q001	B	0
	C	4.5
	E	0

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

MAIN P.W.B. SELECTOR PART

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


2
3
4
5
6
A
B
C
to def part
V-PULSE
FAP
5VSTBY
9V-B
POWER2
PROTE-O
PROTE-IN
12V
U001 PIC-21043SR
POWER S003
CH-UP CH-DOWN VOL-UP VOL-DOWN AVX S001
MENU S002
L011 100
C053 100/6.3 CE-M
R001 1.2K
R002 1K
R003 1.5K
R004 2.7K
R005 4.7K
R006 10K
Only 32UX51B/CY77 32FX41B/CY75
C025 1/50 CE-M
**** C00T CE-M
I008
OUT IN
C00R 100/16 CE-M
R068 470
* R069 100
*Q005 2SC458 (C/D)
R06A 560
C026 680P CCSL-J
R070 * 1K
L003 100
5V-ST
I003 PST572D RESET
C001 100/6.3 CE-M
R011 56K
C002 2.2/50 CE-M
R007 22K
C008 1500P CK-K
**** C004 CE-M
C010 1/50 CE-M
C009 0.1 MYL-K
R010 10K
Q001 2SC458 (C/D)
R009 33K
C005 0.022 MYL-K
R008 22K
R0HA 10K
D002 1SS254
C006 0.033 MYL-K
C007 1500P CK-K
R087 10K
R086 10K
R0K6 4.7K
R0K3 27K
R0K4 12K
Q021 2SC458
R0K1 47K
Q020 2SC458
R0K2 27K
R0K5 12K
SPOT
C031 0.1 MYL-K
R037 100K
R038 5.6K
D004 1SS254
C028 10/16 CE-M
R039 270K
R017 100
R018 100
H003
H004
R046 100
R012 4.7K
R040 1K
Q015 2SC458 (B/C)
R041 4.7K
R0H7 1K
H005
R07A 4.7K
R07C 5.6K
R07E 5.6K
R015 5.6K
R016 5.6K
R07H 1K
CT01
C014 10P
C013 22P
X001
R021 1K
R022 1K
R023 1K
C012 33P
C011 33P
L001
C003 0.1 MYL-K
R024 1K
R025 1K
㉖
㉗
Q002 2SC458 (C/D)
D005 1SS254
R026 10K
R08T 1K
H001
H002
SCL1 SDA1 SCL2 SDA2 SCL3 SDA3 RIMOCON-IN VSS CF1 CF2 VDD AFC1 A/D AFC2 OSD RESET IN RES LC1 LC2 FILT AVDD AVSS CVIN VS HS TIMER
TIMER TEST K13 K12 K11 K02 SYNC CHG K01 POWER2 R/C.IN SD IN I²C ENABLE WATCH DOG P BLANK BPF PROTE-OUT DYNAMIC BASS OSD RESET OUT SP MUTE ANT SRS MUTE POWER1 OSD.BKANK OSD.B OSD.G OSD.R
I001 LC864156B-5E03 SELECTOR
R08A 1K
D003 1SS254
Only 36UX52B/CZ77 32UX51B/CY77
B R09Y 1K
L012 100 LAL
R058 100K
C051 100/16 CE-M
C030 4.7/16 CE-M
** J0FB
VCC Y X X1 X0 A B C
Y1 Y0 Z1 Z Z0 VDD
* I004 HD14053B
R060 1K
Q006 2SA673 (B/C)
C032 1000P CK-K
R059 10K
R0F8 10K
* R049 10K
C00A 4.7/16 CE-M
R0FC 82K
Q008 2SA673 (B/C)
R0FA 1K
C052 1000P CK-K
R0F9 10K
R047 5.6K
Q007 2SC458 (B/C)
R048 47K
R09F 47K
R090 10K
R057 3.3K
R056 10K
R031 10K
R061 4.7K
R066 10K
* R078 10K
R053 10K
R079 10K
R088 10K
R082 18K
C050 4.7/25 CE-M
R055 560
R054 1K
C015 1000P CK-K
D010 1SS254
* R020 1K
Q00B 2SC458 (B/C)
D006 1SS254
D00T 1SS254
Q00A 2SC458 (B/C)
R04A 47K
D00X 1SS254
C054 100/16 CE-M
C00X 4.7/25 CE-M
D008 1SS254
D009 1SS254
D011 1SS254
R085 47K
R00W 10K
R00R 47K
R052 10K
D019 1SS254
R084 1.2K
R083 1K
R073 1K
R072 1K
R071 1K
R035 2.2K
C033 4.7/25 CE-M
Only 36UX52B/CZ77 - - - → 32UX51B/CY77
TIMER
SRS
MUTE
SPMUTE
SCL3
SDA3
DBASS
OSDBLK
TO AUDIO PART
R00A 3.3K
Q0H2 2SC458 (B/C)
R0H6 1K
C0A7 270P CK-K
R0H3 10K
R0H4 10K
D0A1 1SS254
EXCEPT(A/B)
R0H7 5.6K
R0H8 3.9K
C006
L0A1

****

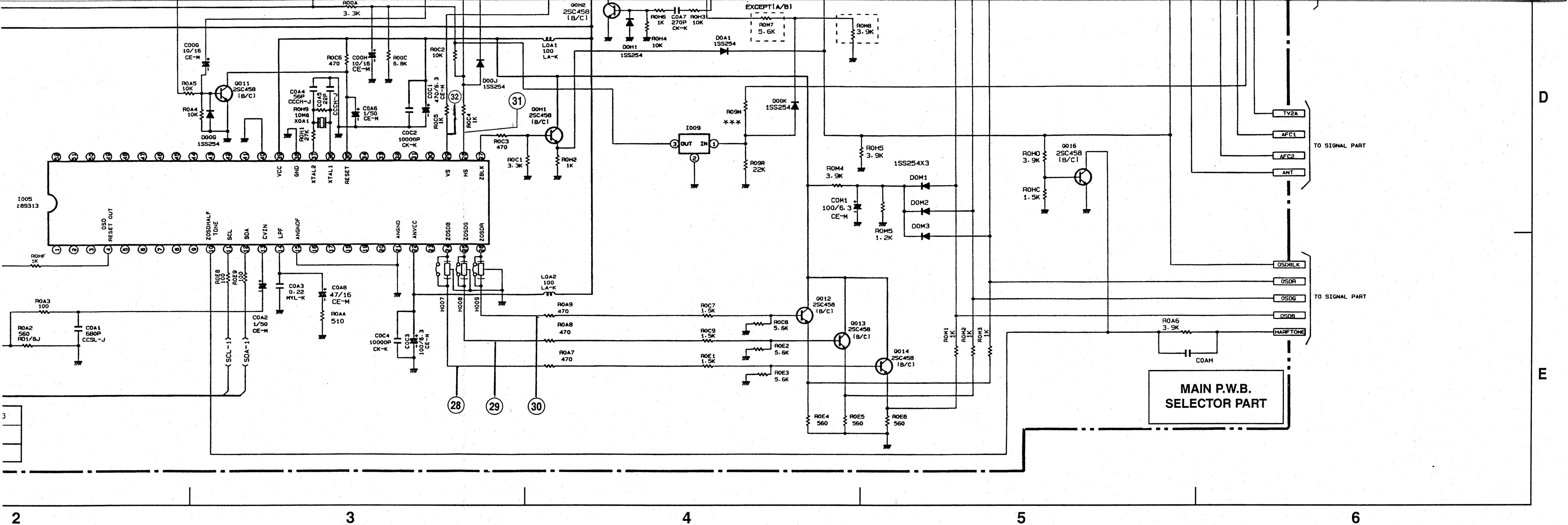
	36UX52B/CZ77	36FX42B/CZ75
	32UX51B/CY77	32FX41B/CY75
		36CX35B/CZ73
C00T	100/6.3	47/10
C004	100/6.3	47/10

*

UNNECESSARY PARTS FOR THE 36CX35B/CZ73 MODEL	
R069	R059
R070	R060
Q005	C032
C051	R049
I004	R022
R058	R051
C030	R078
Q006	R020

**

NECESSARY PARTS FOR THE 36CX35B/CZ73 MODEL	
J0FB	—


MAIN P.W.B.
SELECTOR PART
I005
Z89313
I009
OUT
IN
Q011 2SC458 (B/C)
Q0H1 2SC458 (B/C)
Q0H2 2SC458 (B/C)
Q012 2SC458 (B/C)
Q013 2SC458 (B/C)
Q014 2SC458 (B/C)
Q016 2SC458 (B/C)
D00G 1SS254
D00J 1SS254
D0H1 1SS254
D0A1 1SS254
D00K 1SS254
1SS254X3
D0M1
D0M2
D0M3
C0M1 100/6.3 CE-M
EXCEPT(A/B)
R0M7 5.6K
R0M8 3.9K
R0H5 3.9K
R0M4 3.9K
R0M5 1.2K
R09M
***
R09R 22K
R0H0 3.9K
R0HC 1.5K
L0A1 100 LA-K
L0A2 100 LA-K
X0A1
VCC
GND
XTAL2
XTAL1
RESET
VS
HS
ZBLK
OSD RESET OUT
ZOSDHALF TONE
SCL
SDA
CVIN
LPF
ANGNDF
ANGND
ANVCC
ZOSDB
ZOSDG
ZOSDR
H007
H008
H009
SCL-1
SDA-1
TV2A
AFC1
AFC2
ANT
TO SIGNAL PART
OSDBLK
OSDR
OSDG
OSDB
HARFTONE
R0A6 3.9K
C0AH
R0E4 560
R0E5 560
R0E6 560
R0H1 1K
R0H2 1K
R0H3 1K
(28)
(29)
(30)
(31)
(32)
D
E
2
3
4
5
6

	4.5
	5
	5
	5
	2.5
	5
	5
	5
	5
	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
I004	1	0.2
	2	0.2
	3	0.2
	4	0.2
	5	0.2
	6	0
	7	0
	8	0
	9	3
	10	2.5
	11	5
	12	0
	13	2.5
	14	2.5
	15	0
	16	8

	C Voltage Vdc
	0
	0
	0
	0
	4.5
	4.5
	0
	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
I006	1	5
	2	0
	3	5

	C Voltage Vdc
	5
	0
	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
I008	1	12
	2	0
	3	5

CIRCUIT No.	Pin No.	DC Voltage Vdc
U001	1	0
	2	5
	3	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
I005	1	0
	2	0
	3	0
	4	0
	5	0
	6	0
	7	0
	8	0
	9	0
	10	1.5
	11	5
	12	5
	13	2
	14	1
	15	0
	16	1.5
	17	0
	18	0
	19	0
	20	0
	21	0
	22	5
	23	0
	24	0
	25	0
	26	0
	27	0
	28	4
	29	4.5
	30	0
	31	0
	32	0
	33	0
	34	0
	35	5
I005	36	1.5
	37	2
	38	0
	39	5
	40	0
	41	1
	42	0
	43	0
	44	0
	45	0
	46	0
	47	0
	48	0
	49	0
	50	0
	51	0
	52	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
Q001	B	0
	C	4.5
	E	0

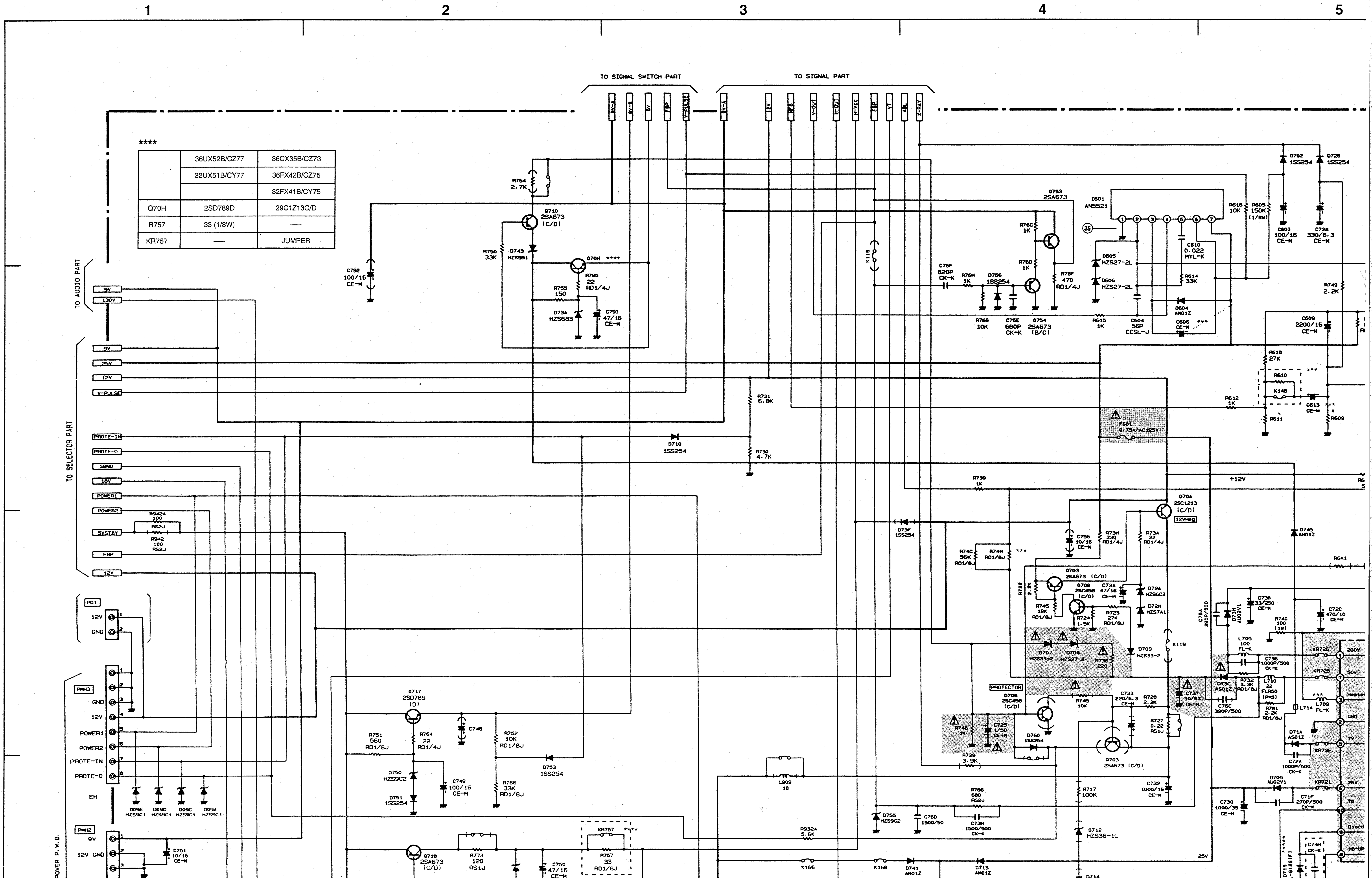
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT No.	Pin No.	DC Voltage Vdc
Q002	B	0
	C	4
	E	0
Q004	B	0.6
	C	0
	E	0
Q005	B	3.5
	C	8
	E	3
Q006	B	3
	C	0
	E	3
Q007	B	0
	C	4
	E	0
Q008	B	2
	C	5
	E	2
Q009	B	0.6
	C	0
	E	0
Q010	B	4.5
	C	8
	E	3.5
Q011	B	0
	C	5
	E	0
Q012	B	0
	C	5
	E	0
Q013	B	0
	C	5
	E	0
Q014	B	0
	C	5
	E	0
Q015	B	4.5
	C	5
	E	4
Q016	B	0
	C	0
	E	0
Q020	B	0.6
	C	0
	E	0
Q021	B	0
	C	9
	E	0
Q00A	B	0
	C	5
	E	0
Q00B	B	3.5
	C	0
	E	3.5
Q0H1	B	0
	C	5
	E	0
Q0H2	B	0
	C	4
	E	0

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

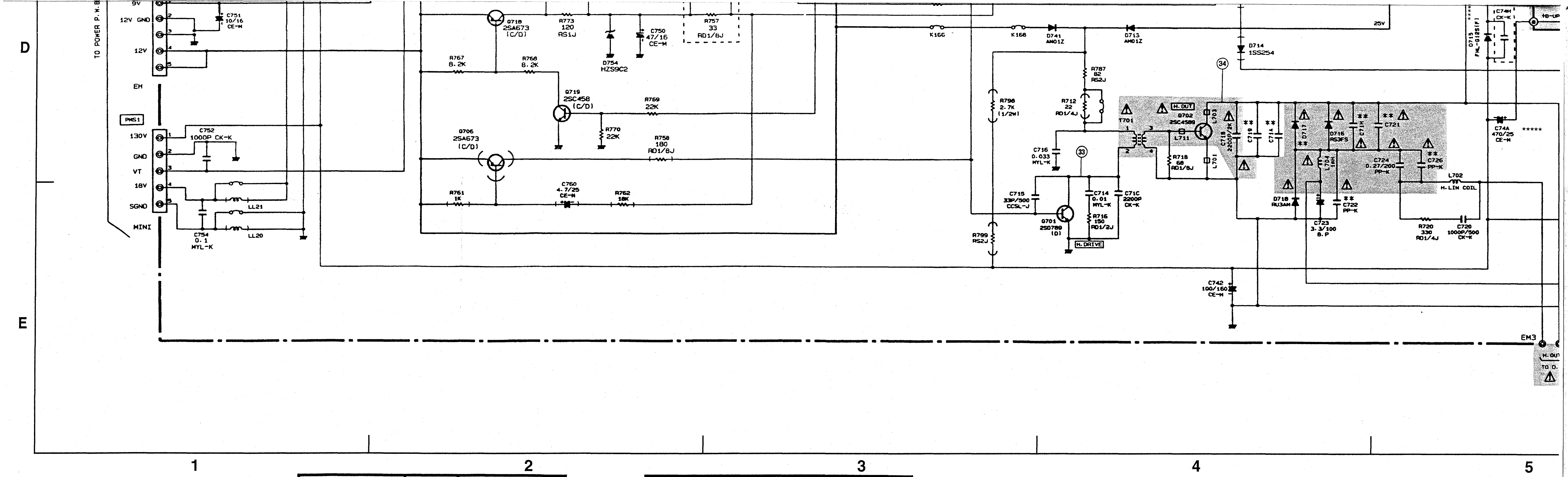
MAIN P.W.B. DEFLECTION PART

PRODUCT SAFETY NOTE: Components ma
any of these components, read carefully the
through improper servicing.


1
2
3
4
5
A
B
C
D
TO SIGNAL SWITCH PART
TO SIGNAL PART
TO AUDIO PART
TO SELECTOR PART
9V
130V
25V
12V
V-PULSE
PROTE-IN
PROTE-O
SGND
18V
POWER1
POWER2
5VSTBY
FBP
R942A 100 RS2J
R942 100 RS2J
PG1
PWH3
PWH2
GND
POWER1
POWER2
PROTE-IN
PROTE-O
EH
D09E HZS9C1
D09D HZS9C1
D09C HZS9C1
D09A HZS9C1
POWER P.W.B.
C751 10/16 CE-M
C792 100/16 CE-M
R754 2.7K
Q710 2SA673 (C/D)
R750 33K
D743 HZS5B1
Q70H ****
R795 22 RD1/4J
R755 150
D73A HZS6B3
C793 47/16 CE-M
R731 6.8K
R730 4.7K
D710 1SS254
K118
Q753 2SA673
R76C 1K
R760 1K
R76F 470 RD1/4J
C76F 820P CK-K
R76H 1K
D756 1SS254
R766 10K
C76E 680P CK-K
Q754 2SA673 (B/C)
I601 AN5521
D605 HZS27-2L
D606 HZS27-2L
C610 0.022 MYL-K
R614 33K
D604 AM01Z
R615 1K
C604 56P CCSL-J
C606 CE-M ***
R616 10K
R605 150K (1/8W)
D702 1SS254
D726 1SS254
C603 100/16 CE-M
C728 330/6.3 CE-M
R749 2.2K
C609 2200/16 CE-M
R618 27K
R610
K148
***
C613 CE-M
R612 1K
R611
R609
F601 0.75A/AC125V
R739 1K
+12V
Q70A 2SC1213 (C/D)
12VReg
D745 AM01Z
D73F 1SS254
C756 10/16 CE-M
R73H 330 RD1/4J
R73A 22 RD1/4J
R74C 56K RD1/8J
R74H RD1/8J ***
Q703 2SA673 (C/D)
Q706 2SC458 (C/D)
C73A 47/16 CE-M
D72A HZS6C3
D72H HZS7A1
R722 2.2K
R745 12K RD1/8J
R724 1.5K
R723 27K RD1/8J
D707 HZS33-2
D708 HZS27-3
R736 220
D709 HZS33-2
K119
PROTECTOR
Q708 2SC458 (C/D)
R745 10K
C733 220/6.3 CE-M
R728 2.2K
R727 0.22 RS1J
C737 10/63 CE-M
R746 1K
C725 1/50 CE-M
D760 1SS254
R729 3.9K
Q703 2SA673 (C/D)
C75A 390P/500
D73H AU02V1
C738 33/250 CE-M
L705 100 FL-K
C736 1000P/500 CK-K
D73C AS01Z
R732 3.3K RD1/8J
L710 22 FLR50 (P=5)
C76C 390P/500
R781 2.2K RD1/8J
L709 FL-K
L71A
D71A AS01Z
C72A 1000P/500 CK-K
R740 100 (1W)
C72C 470/10 CE-M
KR726
KR725
KR73E
KR721
200V
50V
Heater
GND
7V
26V
R6A1
Q717 2SD789 (D)
C748
R751 560 RD1/8J
R764 22 RD1/4J
R752 10K RD1/8J
D750 HZS9C2
D751 1SS254
C749 100/16 CE-M
R766 33K RD1/8J
D753 1SS254
L909 18
D755 HZS9C2
C760 1500/50
R786 680 RS2J
C73H 1500/500 CK-K
R717 100K
C732 1000/16 CE-M
D712 HZS36-1L
R932A 5.6K
C730 1000/35 CE-M
D705 AU02V1
C71F 270P/500 CK-K
Q718 2SA673 (C/D)
R773 120 RS1J
C750 47/16 CE-M
KR757 ****
R757 33 RD1/8J
K166
K168
D741 AM01Z
D713 AM01Z
D714
25V
C74H CK-K
*****

****

	36UX52B/CZ77	36CX35B/CZ73
	32UX51B/CY77	36FX42B/CZ75
		32FX41B/CY75
Q70H	2SD789D	29C1Z13C/D
R757	33 (1/8W)	—
KR757	—	JUMPER


D
E
TO POWER P.W.B
9V
12V GND
12V
EM
PMS1
130V
GND
VT
18V
SGND
MINI
C751 10/16 CE-M
C752 1000P CK-K
C754 0.1 MYL-K
LL21
LL20
Q718 2SA673 (C/D)
R773 120 RS1J
D754 HZS9C2
C750 47/16 CE-M
R757 33 RD1/8J
R767 8.2K
R768 8.2K
Q719 2SC458 (C/D)
R769 22K
R770 22K
Q706 2SA673 (C/D)
R758 180 RD1/8J
R761 1K
C760 4.7/25 CE-M
R762 18K
K166
K168
D741 AM01Z
D713 AM01Z
D714 1SS254
25V
R787 82 RS2J
R798 2.7K (1/2W)
R712 22 RD1/4J
R799 RS2J
C716 0.033 MYL-K
33
34
T701
H.OUT
Q702 2SC4589
L711
L703
L701
R718 68 RD1/8J
C715 33P/500 CCSL-J
Q701 2SD789 (D)
C714 0.01 MYL-K
C71C 2200P CK-K
R716 150 RD1/2J
H.DRIVE
C718 2200P/2K
C719
C71A
D717
D716 RS3FS
C71H
C721
L704 1mH
C724 0.27/200 PP-K
C726 PP-K
L702 H.LIN COIL
D718 RU3AM
C723 3.3/100 B.P
C722 PP-K
R720 330 RD1/4J
C720 1000P/500 CK-K
C742 100/160 CE-M
D715 FML-G12S(F)
C74H CK-K
C74A 470/25 CE-M
*****
+B-UP
EM3
H.OUT
TO O.
1
2
3
4
5

CIRCUIT No.	Pin No.	DC Voltage Vdc
I601	1	0
	2	13.5
	3	26
	4	0.7
	5	0
	6	2
	7	25

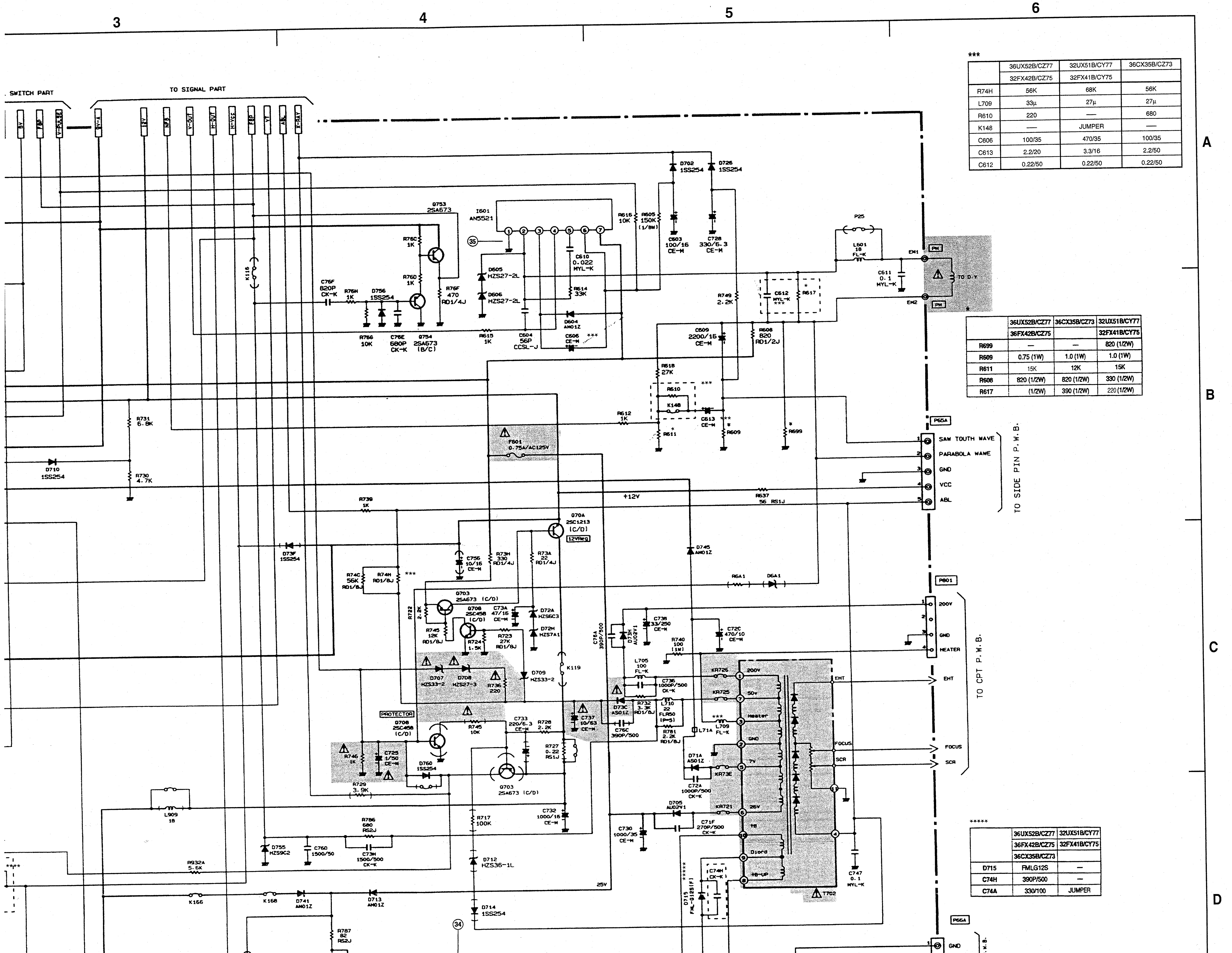
CIRCUIT No.	Pin No.	DC Voltage Vdc
Q701	B	0
	C	15
	E	0
Q702	B	0
	C	129
	E	0
Q710	B	4.5
	C	0
	E	4.5
Q717	B	9
	C	12
	E	8
Q718	B	11
	C	12
	E	12
Q719	B	0.6
	C	0
	E	0
Q752	B	0
	C	22
	E	0
Q753	B	9
	C	1.5
	E	9
Q754	B	0
	C	8
	E	0
Q70A	B	12.5
	C	12
	E	12
Q70H	B	5
	C	6
	E	4.5

- Since this is a basic circuit diagram, t
- All DC voltage to be measured with a

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

MAIN P.W.B. DEFLECTION PART

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



3
4
5
6
A
B
C
D
SWITCH PART
TO SIGNAL PART
5V
FBP
V-PULSE
5V-A
12V
NFB
V-OUT
H-OUT
H-Vcc
FBP
VT
ABL
X-RAY
D702 1SS254
D726 1SS254
Q753 2SA673
IC601 AN5521
35
R616 10K
R605 150K (1/8W)
C603 100/16 CE-M
C728 330/6.3 CE-M
P25
L601 18 FL-K
C611 0.1 MYL-K
EM1
EM2
PH
TO D.Y
K116
R76C 1K
R76D 1K
R76F 470 RD1/4J
C76F 820P CK-K
R76H 1K
D756 1SS254
D605 HZS27-2L
D606 HZS27-2L
C610 0.022 MYL-K
R614 33K
D604 AM01Z
R766 10K
C76E 680P CK-K
Q754 2SA673 (B/C)
R615 1K
C604 56P CCSL-J
C606 CE-M ***
R749 2.2K
C612 MYL-K ***
R617 *
C609 2200/16 CE-M
R608 820 RD1/2J
R618 27K
R610
K148
R612 1K
C613 CE-M ***
R611 *
R609 *
R699 *
F601 0.75A/AC125V
R731 6.8K
R730 4.7K
D710 1SS254
P65A
SAW TOUTH WAVE
PARABOLA WAWE
GND
VCC
ABL
TO SIDE PIN P.W.B.
+12V
R637 56 RS1J
R739 1K
Q70A 2SC1213 (C/D)
12VReg
D73F 1SS254
C756 10/16 CE-M
R73H 330 RD1/4J
R73A 22 RD1/4J
D745 AM01Z
R74C 56K RD1/8J
R74H RD1/8J ***
R6A1
D6A1
P801
200V
GND
HEATER
TO CPT P.W.B.
Q703 2SA673 (C/D)
Q706 2SC458 (C/D)
C73A 47/16 CE-M
D72A HZS6C3
D72H HZS7A1
R722 2.2K
R745 12K RD1/8J
R723 27K RD1/8J
R724 1.5K
D709 HZS33-2
K119
C76A 390P/500
D73H AU02V1
C738 33/250 CE-M
C72C 470/10 CE-M
R740 100 (1W)
L705 100 FL-K
C736 1000P/500 CK-K
KR726
KR725
D707 HZS33-2
D708 HZS27-3
R736 220
D73C AS01Z
R732 3.3K RD1/8J
L710 22 FLR50 (P=5)
C76C 390P/500
R781 2.2K RD1/8J
L71A
L709 FL-K ***
PROTECTOR
Q708 2SC458 (C/D)
R745 10K
C733 220/6.3 CE-M
R726 2.2K
C737 10/63 CE-M
R727 0.22 RS1J
R746 1K
C725 1/50 CE-M
D760 1SS254
Q703 2SA673 (C/D)
D71A AS01Z
KR73E
C72A 1000P/500 CK-K
D705 AU02V1
KR721
C71F 270P/500 CK-K
R729 3.9K
L909 18
R786 680 RS2J
R717 100K
C732 1000/16 CE-M
C730 1000/35 CE-M
D755 HZS9C2
C760 1500/50
C73H 1500/500 CK-K
D712 HZS36-1L
R932A 5.6K
25V
D715 FML-G12S(F) *****
C74H CK-K ***
K166
K168
D741 AM01Z
D713 AM01Z
D714 1SS254
34
R787 82 RS2J
200V
50V
Heater
GND
7V
26V
+B
Diord
+B-UP
EHT
FOCUS
SCR
T702
C747 0.1 MYL-K
P66A
GND

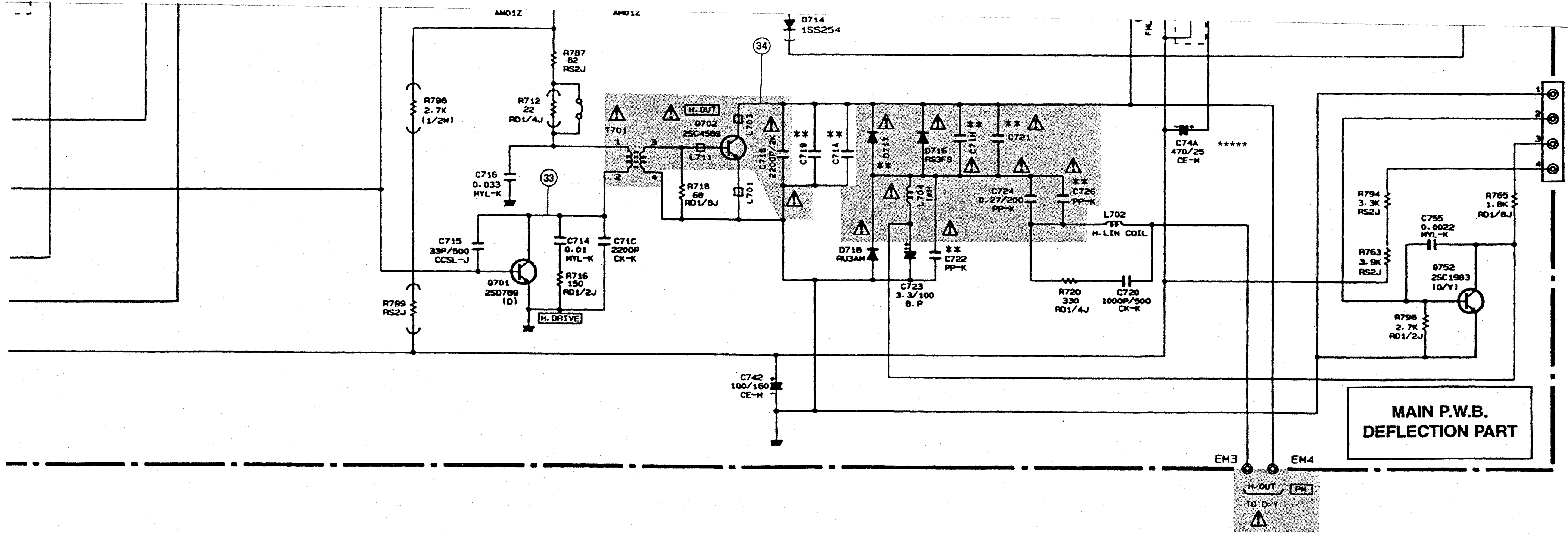
***

	36UX52B/CZ77 32FX42B/CZ75	32UX51B/CY77 32FX41B/CY75	36CX35B/CZ73
R74H	56K	68K	56K
L709	33µ	27µ	27µ
R610	220	—	680
K148	—	JUMPER	—
C606	100/35	470/35	100/35
C613	2.2/20	3.3/16	2.2/50
C612	0.22/50	0.22/50	0.22/50

	36UX52B/CZ77 36FX42B/CZ75	36CX35B/CZ73	32UX51B/CY77 32FX41B/CY75
R699	—	—	820 (1/2W)
R609	0.75 (1W)	1.0 (1W)	1.0 (1W)
R611	15K	12K	15K
R608	820 (1/2W)	820 (1/2W)	330 (1/2W)
R617	(1/2W)	390 (1/2W)	220 (1/2W)

*****

	36UX52B/CZ77 36FX42B/CZ75 36CX35B/CZ73	32UX51B/CY77 32FX41B/CY75
D715	FMLG12S	—
C74H	390P/500	—
C74A	330/100	JUMPER


AM01Z
AM01Z
D714
1SS254
34
R787
82
RS2J
R796
2.7K
(1/2W)
R712
22
RD1/4J
T701
H.OUT
Q702
2SC4589
L703
L711
L701
C718
2200P/2K
**
C719
**
C71A
C716
0.033
MYL-K
33
R718
68
RD1/8J
C715
33P/500
CCSL-J
Q701
2SD789
(D)
C714
0.01
MYL-K
C71C
2200P
CK-K
R716
150
RD1/2J
H.DRIVE
R799
RS2J
C742
100/160
CE-M
D717
**
D716
RS3FS
C71H
**
C721
L704
1mH
C724
0.27/200
PP-K
C726
PP-K
L702
H.LIN COIL
D718
RU3AM
C723
3.3/100
B.P
C722
PP-K
R720
330
RD1/4J
C720
1000P/500
CK-K
C74A
470/25
CE-M
*****
P66A
1
2
3
4
GND
OUT PUT
FB
Vcc
TO SIDE PIN P.W.B.
R794
3.3K
RS2J
R765
1.8K
RD1/8J
C755
0.0022
MYL-K
R763
3.9K
RS2J
Q752
2SC1983
(O/Y)
R798
2.7K
RD1/2J
MAIN P.W.B.
DEFLECTION PART
EM3
EM4
H.OUT
PH
TO D.Y

**

	36UX52B/CZ77	32UX51B/CY77
	36FX42B/CZ75	32FX41B/CY75
	36CX35B/CZ73	
C719	2200P/2K	1800P/2K
D717	RS3FS	—
C71A	—	180P/2K
C722	0.018/630	0.015/630
C71H	180P/2K	—
C721	15000P/1.8K	12000P/1.8K
C726	0.33/200	0.027/200

E

3

4

5

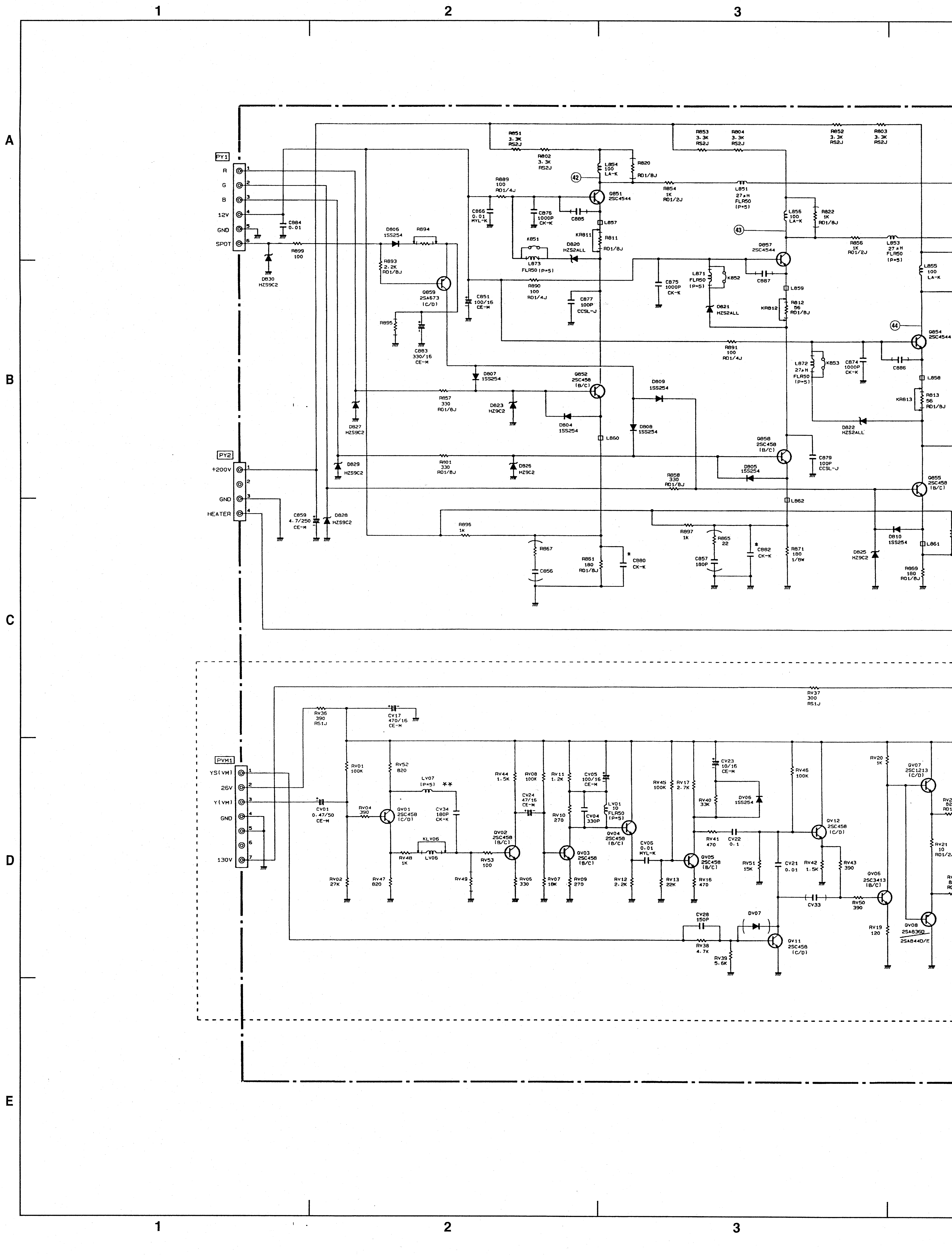
6

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

Pin No.	DC Voltage Vdc
B	0
C	15
E	0
B	0
C	129
E	0
B	4.5
C	0
E	4.5
B	9
C	12
E	8
B	11
C	12
E	12
B	0.6
C	0
E	0
B	0
C	22
E	0
B	9
C	1.5
E	9
B	0
C	8
E	0
B	12.5
C	12
E	12
B	5
C	6
E	4.5

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77,
36FX42B/CZ75, 32FX41B/CY75 AND 36CX35

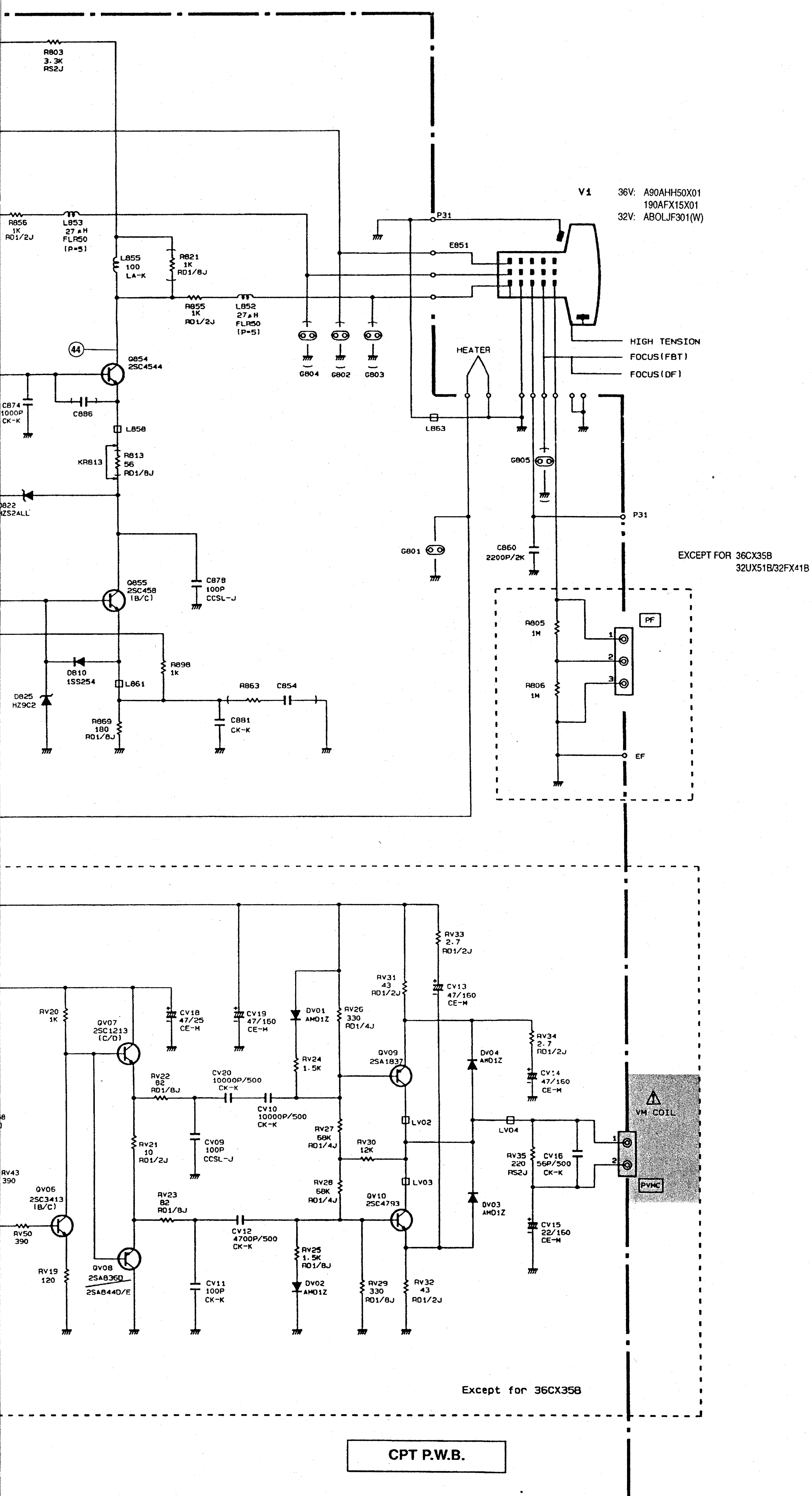
CPT P.W.B.



1
2
3
A
B
C
D
E
PY1
R
G
B
12V
GND
SPOT
C884 0.01
R899 100
D830 HZS9C2
D806 1SS254
R894
R893 2.2K RD1/8J
Q859 2SA673 (C/D)
R895
C883 330/16 CE-M
C851 100/16 CE-M
R851 3.3K RS2J
R802 3.3K RS2J
R889 100 RD1/4J
C866 0.01 MYL-K
C876 1000P CK-K
C885
K851
L873 FLR50 (P=5)
D820 HZS2ALL
R890 100 RD1/4J
C877 100P CCSL-J
42
L854 100 LA-K
R820 RD1/8J
Q851 2SC4544
L857
KR811
R811 RD1/8J
R853 3.3K RS2J
R804 3.3K RS2J
R854 1K RD1/2J
L851 27μH FLR50 (P=5)
43
L856 100 LA-K
R822 1K RD1/8J
Q857 2SC4544
C875 1000P CK-K
L871 FLR50 (P=5)
K852
C887
L859
D821 HZS2ALL
KR812
R812 56 RD1/8J
R852 3.3K RS2J
R803 3.3K RS2J
R856 1K RD1/2J
L853 27μH FLR50 (P=5)
L855 100 LA-K
44
Q854 2SC4544
R891 100 RD1/4J
L872 27μH FLR50 (P=5)
K853
C874 1000P CK-K
C886
L858
KR813
R813 56 RD1/8J
D822 HZS2ALL
D807 1SS254
R857 330 RD1/8J
D823 HZ9C2
Q852 2SC458 (B/C)
D804 1SS254
D809 1SS254
D808 1SS254
L860
D827 HZS9C2
PY2
+200V
GND
HEATER
D829 HZS9C2
R801 330 RD1/8J
D826 HZ9C2
Q858 2SC458 (B/C)
C879 100P CCSL-J
D805 1SS254
R858 330 RD1/8J
Q855 2SC458 (B/C)
L862
C859 4.7/250 CE-M
D828 HZS9C2
R896 1K
R867
C856
R861 180 RD1/8J
C880 CK-K
R897 1K
R865 22
C857 180P
C882 CK-K
R871 180 1/8W
D825 HZ9C2
D810 1SS254
L861
R869 180 RD1/8J
PVM1
YS(VM)
25V
Y(VM)
GND
130V
RV37 300 RS1J
RV36 390 RS1J
CV17 470/16 CE-M
CV01 0.47/50 CE-M
RV01 100K
RV52 820
LV07 (P=5) **
RV04 390
QV01 2SC458 (C/D)
CV34 180P CK-K
RV48 1K
KLV06
LV06
RV02 27K
RV47 820
RV49
RV53 100
RV44 1.5K
RV08 100K
CV24 47/16 CE-M
QV02 2SC458 (B/C)
RV06 330
RV11 1.2K
RV10 270
QV03 2SC458 (B/C)
RV07 18K
RV09 270
CV05 100/16 CE-M
CV04 330P
LV01 10 FLR50 (P=5)
QV04 2SC458 (B/C)
CV06 0.01 MYL-K
RV12 2.2K
RV45 100K
RV17 2.7K
RV13 22K
CV23 10/16 CE-M
RV40 33K
DV06 1SS254
RV41 470
CV22 0.1
QV05 2SC458 (B/C)
RV16 470
RV51 15K
RV46 100K
CV21 0.01
RV42 1.5K
QV12 2SC458 (C/D)
RV43 390
CV33
RV50 390
CV28 150P
DV07
RV38 4.7K
RV39 5.6K
QV11 2SC458 (C/D)
RV20 1K
QV07 2SC1213 (C/D)
RV21 10 RD1/2
QV06 2SC3413 (B/C)
RV19 120
QV08 2SA836D
2SA844D/E

36UX52B/CZ77, 32UX51B/CY77,
Y75 AND 36CX35B/CZ73
W.B.

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


R803
3.3K
RS2J
R856
1K
RD1/2J
L853
27μH
FLR50
(P=5)
L855
100
LA-K
R821
1K
RD1/8J
R855
1K
RD1/2J
L852
27μH
FLR50
(P=5)
G804
G802
G803
P31
E851
V1
36V: A90AHH50X01
190AFX15X01
32V: ABOLJF301(W)
HIGH TENSION
FOCUS(FBT)
FOCUS(DF)
HEATER
44
Q854
2SC4544
C874
1000P
CK-K
C886
L858
KR813
R813
56
RD1/8J
D822
HZS2ALL
L863
G805
P31
G801
C860
2200P/2K
Q855
2SC458
(B/C)
C878
100P
CCSL-J
D810
1SS254
D825
HZ9C2
R898
1k
L861
R863
C854
R869
180
RD1/8J
C881
CK-K
R805
1M
R806
1M
PF
1
2
3
EF
EXCEPT FOR 36CX35B
32UX51B/32FX41B
RV20
1K
QV07
2SC1213
(C/D)
CV18
47/25
CE-M
CV19
47/160
CE-M
DV01
AMD1Z
RV26
330
RD1/4J
RV33
2.7
RD1/2J
RV31
43
RD1/2J
CV13
47/160
CE-M
RV34
2.7
RD1/2J
RV24
1.5K
QV09
2SA1837
DV04
AMD1Z
CV14
47/160
CE-M
RV22
82
RD1/8J
CV20
10000P/500
CK-K
CV10
10000P/500
CK-K
LV02
LV04
⚠
VM COIL
RV21
10
RD1/2J
CV09
100P
CCSL-J
RV27
68K
RD1/4J
RV30
12K
RV35
220
RS2J
CV16
56P/500
CK-K
1
2
PVMC
RV43
390
QV06
2SC3413
(B/C)
RV23
82
RD1/8J
RV28
68K
RD1/4J
LV03
QV10
2SC4793
DV03
AMD1Z
CV15
22/160
CE-M
RV50
390
CV12
4700P/500
CK-K
RV25
1.5K
RD1/8J
RV19
120
QV08
2SA836D
2SA844D/E
CV11
100P
CK-K
DV02
AMD1Z
RV29
330
RD1/8J
RV32
43
RD1/2J
Except for 36CX358
CPT P.W.B.

*

	36UX52B/CZ77 32UX51B/CY77 36CX35B/CZ73 36FX42B/C75	32FX51B/CY75
C880	680P	470P
C882	560P	470P

*

	36UX52B/CZ77 36FX42B/CZ75 32FX41B/CY75	32UX51B/CY77 36CX35B/CZ73
C881	470P	560P

**

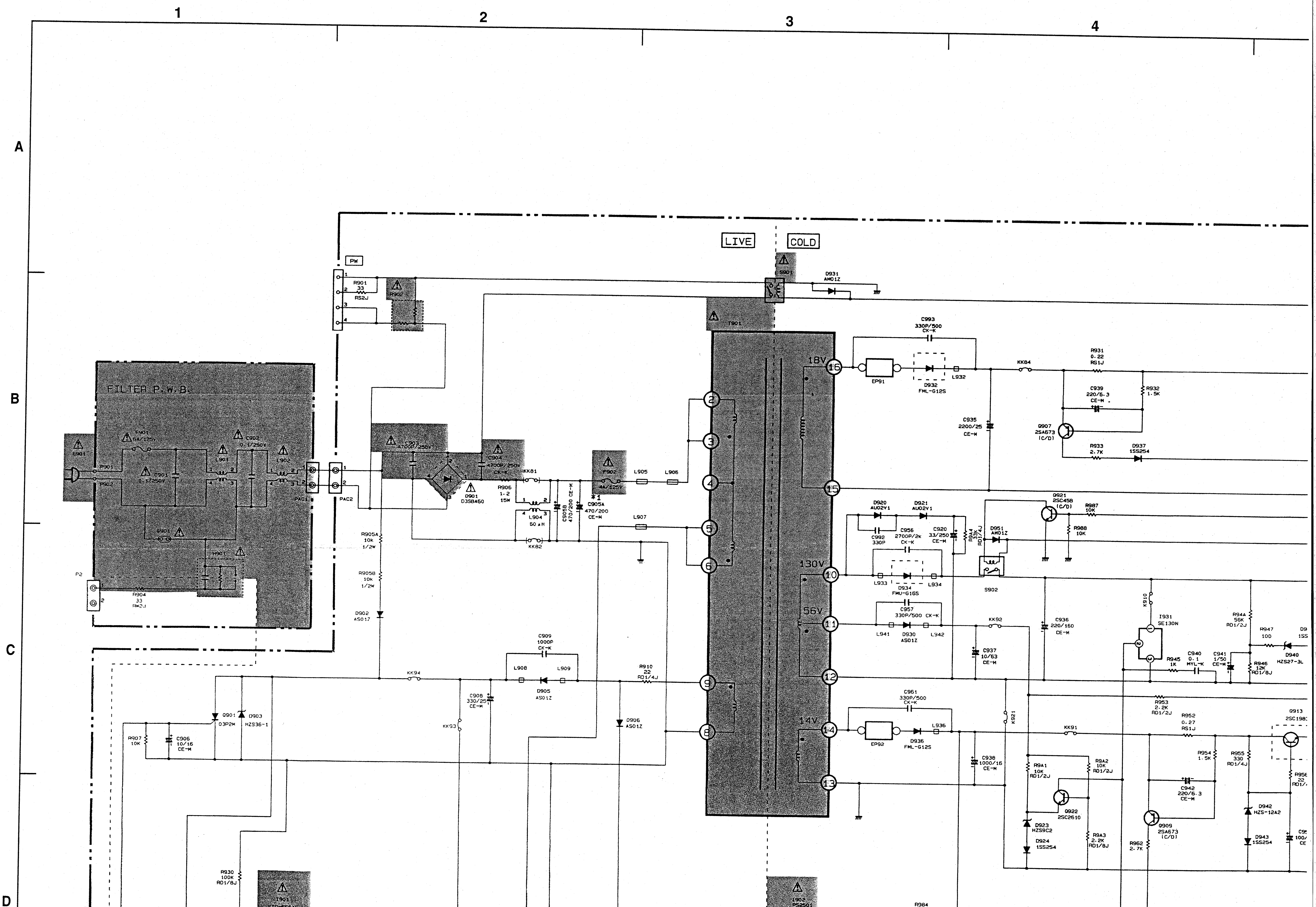
	36UX52B/CZ77 32FX42B/CZ75 32UX51B/CY77	32FX41B/CY75	36CX35B/CZ73
LV07	68UH	100UH	—

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

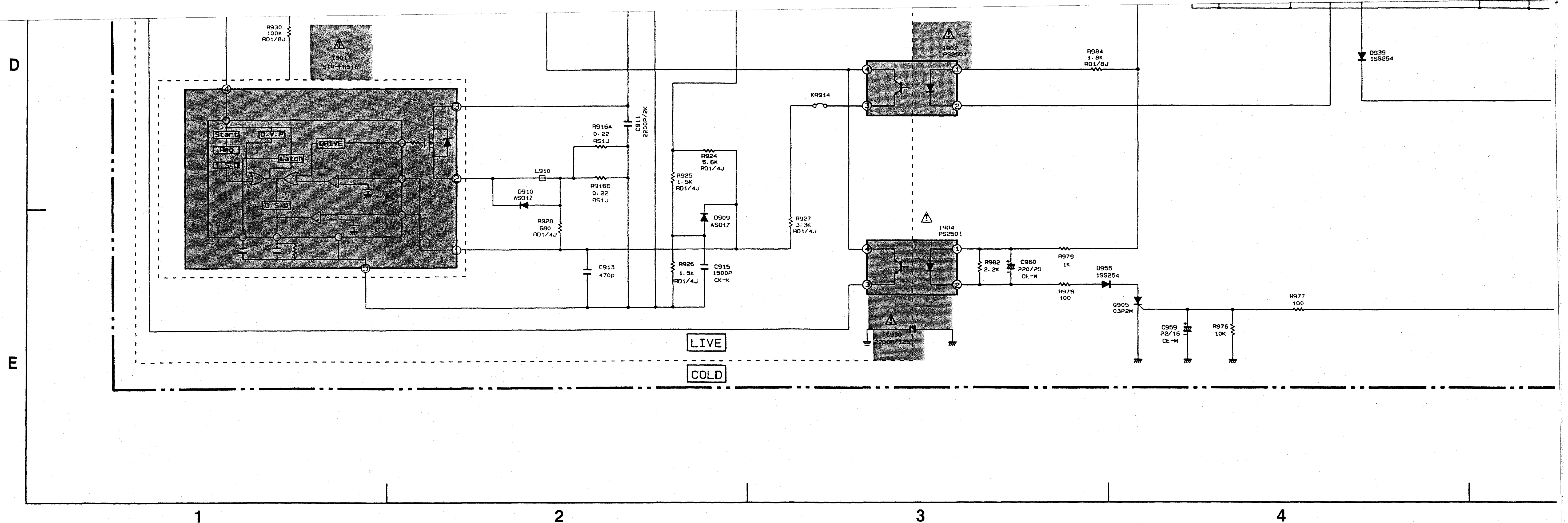
CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

POWER P.W.B.

PRODUCT SAFETY NO
any of these components
through improper servici



1
2
3
4
A
B
C
D
LIVE
COLD
PW
R901 33 RS2J
R902
S901
D931 AM01Z
T901
FILTER P.W.B.
E901
F901 6A/125V
C901 0.1/250V
L901
C902 0.1/250V
L902
R901
R902
PAC1
PAC2
G901
M901
P2
R904 33 RW2J
C903 4700P/250V
C904 4700P/250V
D901 D3SB460
KK81
R906 1.2 15W
L904 50 μH
KK82
C905B 470/200 CE-M
C905A 470/200 CE-M
F902 4A/125V
L905
L906
L907
R905A 10K 1/2W
R905B 10K 1/2W
D902 AS01Z
C993 330P/500 CK-K
18V
EP91
D932 FML-G12S
L932
KK84
R931 0.22 RS1J
C939 220/6.3 CE-M
R932 1.5K
C935 2200/25 CE-M
Q907 2SA673 (C/D)
R933 2.7K
D937 1SS254
D920 AU02V1
D921 AU02V1
C992 330P
C956 2700P/2K CK-K
C920 33/250 CE-M
R944 33K RD1/4J
D951 AM01Z
Q921 2SC458 (C/D)
R987 10K
R988 10K
S902
130V
L933
D934 FMU-G16S
L934
56V
C957 330P/500 CK-K
KK92
L941
D930 AS01Z
L942
C937 10/63 CE-M
C936 220/160 CE-M
X910
I931 SE130N
R945 1K
C940 0.1 MYL-K
C941 1/50 CE-M
R94A 56K RD1/2J
R946 12K RD1/8J
R947 100
D940 HZS27-3L
C909 1000P CK-K
L908
L909
D905 AS01Z
KK94
R910 22 RD1/4J
C908 330/25 CE-M
KK93
D906 AS01Z
Q901 03P2M
D903 HZS36-1
R907 10K
C906 10/16 CE-M
C961 330P/500 CK-K
14V
EP92
D936 FML-G12S
L936
KK921
KK91
R953 2.2K RD1/2J
R952 0.27 RS1J
Q913 2SC198
C938 1000/16 CE-M
R9A1 10K RD1/2J
R9A2 10K RD1/2J
Q922 2SC2610
D923 HZS9C2
D924 1SS254
R9A3 2.2K RD1/8J
R954 1.5K
R955 330 RD1/4J
C942 220/6.3 CE-M
Q909 2SA673 (C/D)
R962 2.7K
D942 HZS-12A2
D943 1SS254
R930 100K RD1/8J
I901
I902 PS2501
R984
2
3
4
5
6
9
8
15
16
10
11
12
13
14


D
E
R930
100K
RD1/8J
I901
STR-F6516
Start
O.V.P
Reg
DRIVE
Latch
O.S.D
O.S.D
R916A
0.22
RS1J
C911
2200P/2K
L910
D910
AS01Z
R916B
0.22
RS1J
R928
680
RD1/4J
C913
470p
R924
5.6K
RD1/4J
R925
1.5K
RD1/4J
D909
AS01Z
R926
1.5k
RD1/4J
C915
1500P
CK-K
KR914
R927
3.3K
RD1/4J
I902
PS2501
R984
1.8K
RD1/8J
D939
1SS254
I904
PS2501
R982
2.2K
C960
220/25
CE-M
R979
1K
R978
100
D955
1SS254
Q905
03P2M
R977
100
C959
22/16
CE-M
R976
10K
C930
2200P/125
LIVE
COLD
1
2
3
4

- Since this i
- All DC volt

CIRCUIT No.	Pin No.	DC Voltage Vdc
I901	1	1.5
	2	0
	3	156
	4	0.7
	5	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
I902	1	13
	2	12
	3	3
	4	17

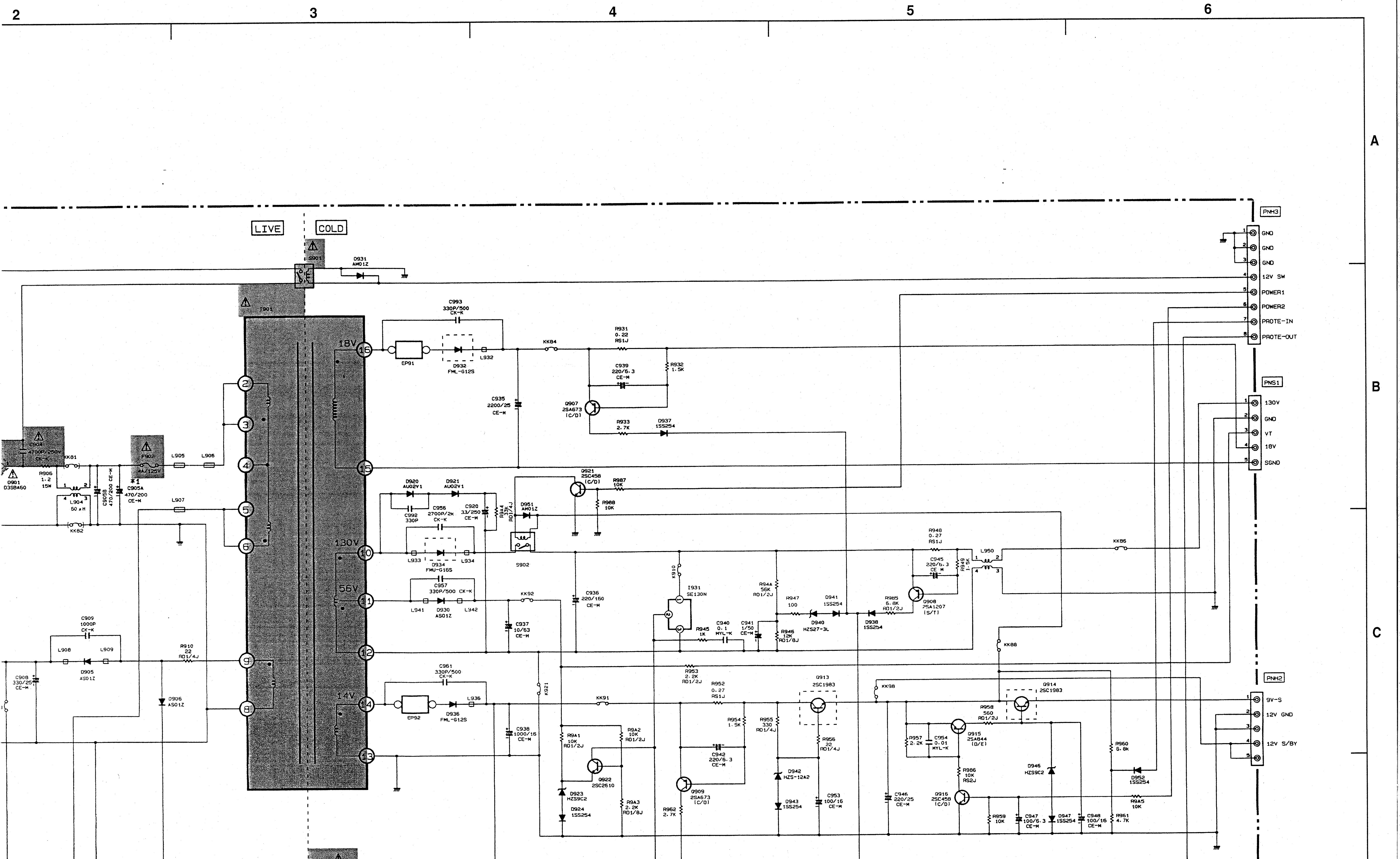
CIRCUIT No.	Pin No.	DC Voltage Vdc
I904	1	13.5
	2	13.5
	3	0
	4	17

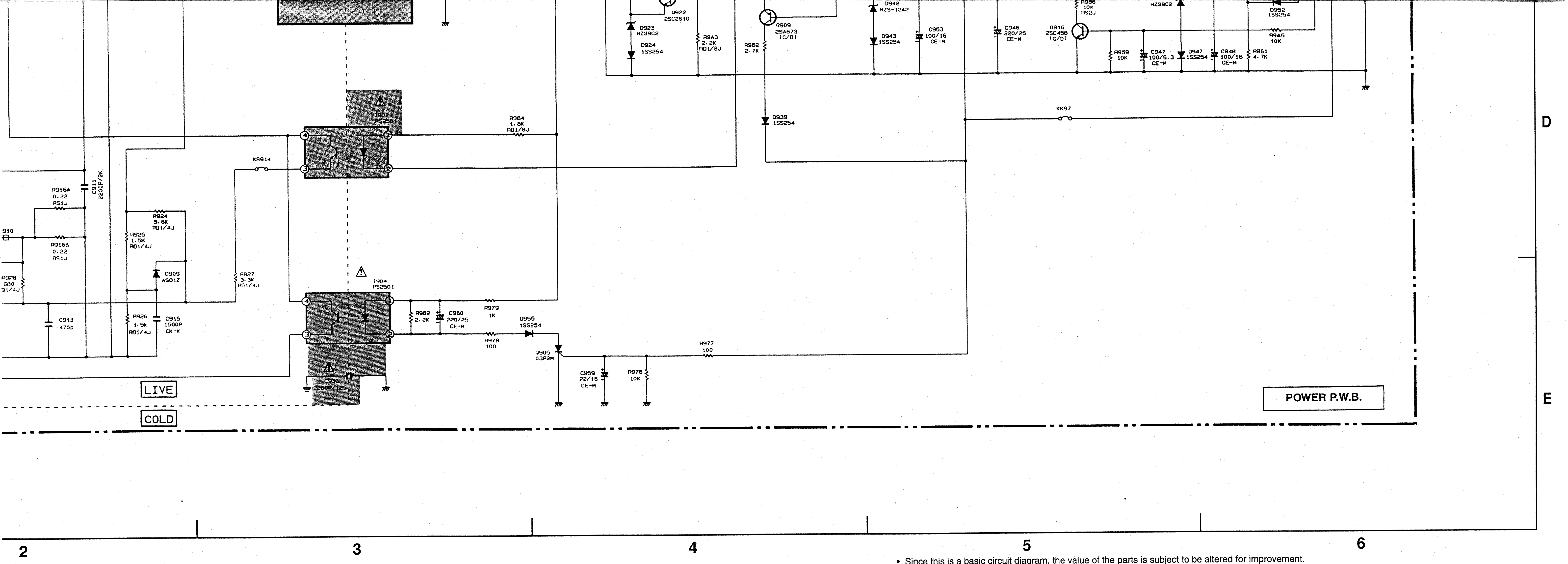
CIRCUIT No.	Pin No.	DC Voltage Vdc
I931	1	130
	2	12
	3	0

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

POWER P.W.B.

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


2
3
4
5
6
A
B
C
LIVE
COLD
S901
D931 AM01Z
T901
C993 330P/500 CK-K
18V
16
EP91
D932 FML-G12S
L932
KK84
R931 0.22 RS1J
C939 220/6.3 CE-M
R932 1.5K
C935 2200/25 CE-M
Q907 2SA673 (C/D)
R933 2.7K
D937 1SS254
PNH3
GND
GND
GND
12V SW
POWER1
POWER2
PROTE-IN
PROTE-OUT
PNS1
130V
GND
VT
18V
SGND
C904 4700P/250V CK-K
D901 D3SBA60
KK81
R906 1.2 15W
L904 50 μH
KK82
C905B 470/200 CE-M
F902 4A/125V
C905A 470/200 CE-M
L905
L906
L907
15
Q921 2SC458 (C/D)
R987 10K
R988 10K
D920 AU02V1
D921 AU02V1
C992 330P
C956 2700P/2K CK-K
C920 33/250 CE-M
R944 33K RD1/4J
D951 AM01Z
S902
130V
10
L933
D934 FMU-G16S
L934
56V
11
C957 330P/500 CK-K
L941
D930 AS01Z
L942
KK92
C936 220/160 CE-M
C937 10/63 CE-M
12
KK910
I931 SE130N
R945 1K
C940 0.1 MYL-K
C941 1/50 CE-M
R94A 56K RD1/2J
R947 100
D941 1SS254
D940 HZS27-3L
R946 12K RD1/8J
D938 1SS254
R985 6.8K RD1/2J
Q908 2SA1207 (S/T)
R948 0.27 RS1J
C945 220/6.3 CE-M
R949 1.5K
L950
KK86
KK88
C909 1000P CK-K
L908
L909
D905 AS01Z
C908 330/25 CE-M
D906 AS01Z
R910 22 RD1/4J
9
8
C961 330P/500 CK-K
14V
14
EP92
D936 FML-G12S
L936
KK921
KK91
C938 1000/16 CE-M
R953 2.2K RD1/2J
R952 0.27 RS1J
Q913 2SC1983
KK98
Q914 2SC1983
PNH2
9V-S
12V GND
12V S/BY
R9A1 10K RD1/2J
R9A2 10K RD1/2J
Q922 2SC2610
D923 HZS9C2
D924 1SS254
R9A3 2.2K RD1/8J
13
C942 220/6.3 CE-M
R954 1.5K
R955 330 RD1/4J
R956 22 RD1/4J
Q909 2SA673 (C/D)
R962 2.7K
D942 HZS-12A2
D943 1SS254
C953 100/16 CE-M
R958 560 RD1/2J
R957 2.2K
C954 0.01 MYL-K
Q915 2SA844 (D/E)
R986 10K RS2J
C946 220/25 CE-M
Q916 2SC458 (C/D)
R959 10K
C947 100/6.3 CE-M
D946 HZS9C2
D947 1SS254
C948 100/16 CE-M
R960 6.8K
D952 1SS254
R9A5 10K
R961 4.7K


D922
2SC2610
D923
HZS9C2
D924
1SS254
R9A3
2.2K
R01/8J
Q909
2SA673
(C/D)
R962
2.7K
D942
HZS-12A2
D943
1SS254
C953
100/16
CE-M
C946
220/25
CE-M
Q916
2SC458
(C/D)
R986
10K
RS2J
HZS9C2
D952
1SS254
R9A5
10K
R959
10K
C947
100/6.3
CE-M
D947
1SS254
C948
100/16
CE-M
R961
4.7K
D939
1SS254
KK97
I902
PS2501
R984
1.8K
R01/8J
KA914
R916A
0.22
RS1J
C911
2200P/2K
R924
5.6K
R01/4J
R925
1.5K
R01/4J
910
R916B
0.22
RS1J
D909
AS01Z
R927
3.3K
R01/4J
R928
680
R01/4J
I904
PS2501
R982
2.2K
C960
220/25
CE-M
R979
1K
D955
1SS254
R978
100
C913
470p
R926
1.5k
R01/4J
C915
1500P
CK-K
Q905
03P2M
R977
100
C959
22/16
CE-M
R976
10K
C930
2200P/125
LIVE
COLD
POWER P.W.B.
D
E
2
3
4
5
6

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT No.	Pin No.	DC Voltage Vdc
I901	1	1.5
	2	0
	3	156
	4	0.7
	5	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
I902	1	13
	2	12
	3	3
	4	17

CIRCUIT No.	Pin No.	DC Voltage Vdc
I904	1	13.5
	2	13.5
	3	0
	4	17

CIRCUIT No.	Pin No.	DC Voltage Vdc
I931	1	130
	2	12
	3	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
Q901	K	0
	A	17
	G	0
Q905	A	13.5
	K	0
	G	0
Q907	B	18
	C	0
	E	18
Q908	B	130
	C	0
	E	130
Q909	B	13
	C	0
	E	13
Q913	B	12.5
	C	13
	E	13
Q914	B	9
	C	12
	E	9
Q915	B	11
	C	12
	E	12
Q916	B	0.6
	C	0
	E	0
Q921	B	0.7
	C	0.6
	E	0
Q922	B	9
	C	12
	E	1

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

SIDE PIN P.W.B. AND CONTROL P.W.B.

PRODUCT SAFETY NOTE: Components n
any of these components, read carefully th
through improper servicing.

1 2 3 4 5

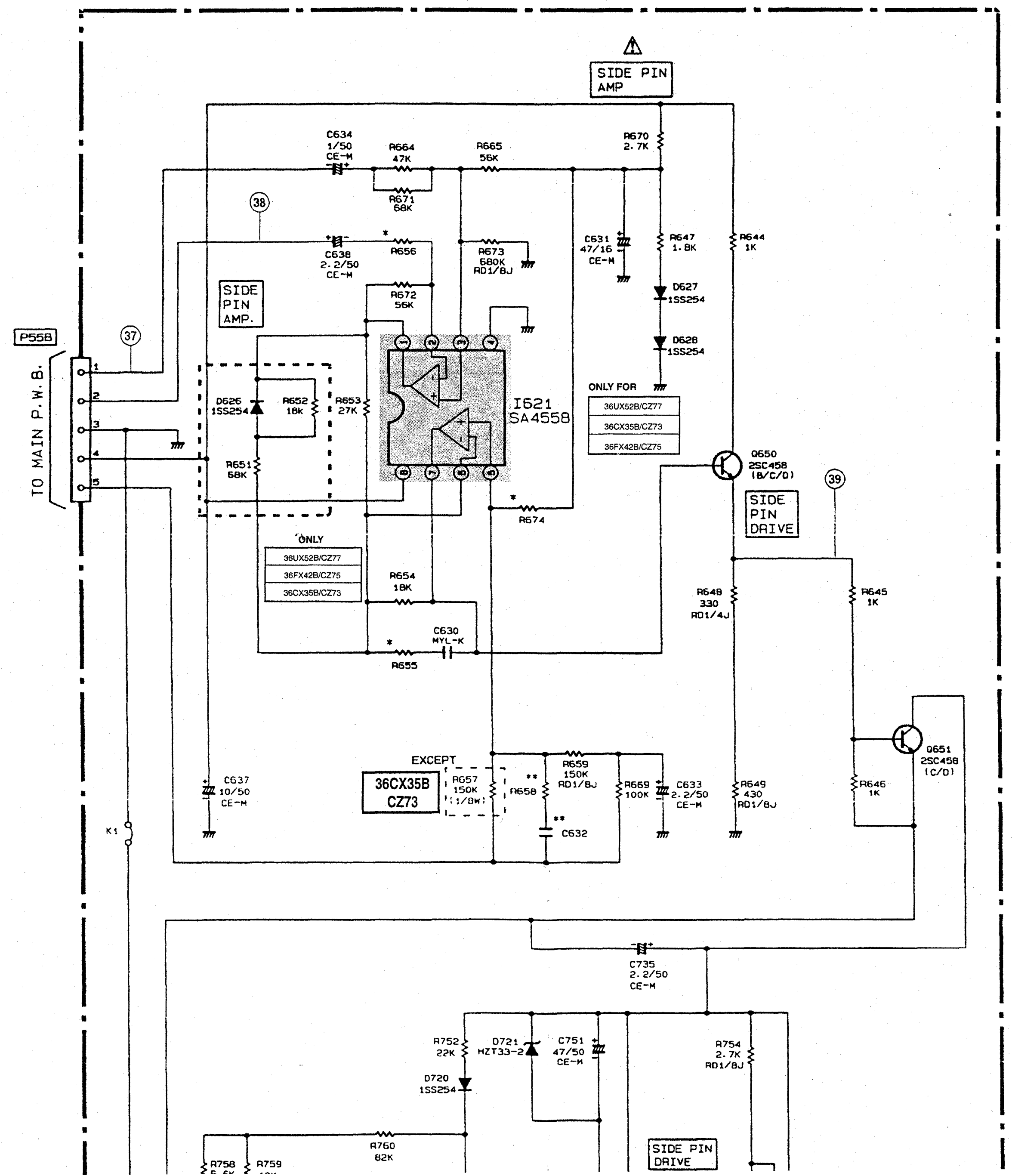
A

B

C

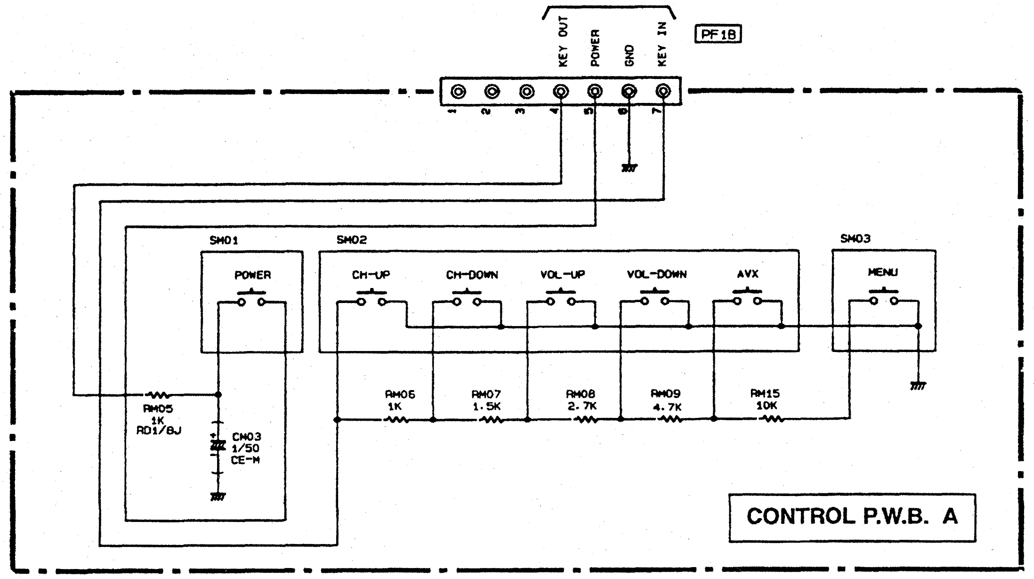
**

	36UX52B/CZ77	32UX51B/CY77	
	36FX42B/CZ75	32FX41B/CY75	
			36CX358/CZ73
R658	12K	22K	—
C632	0.068	0.0015	—


SIDE PIN AMP
C634 1/50 CE-M
R664 47K
R665 56K
R670 2.7K
R671 68K
38
*
C638 2.2/50 CE-M
R656
R673 680K RD1/8J
C631 47/16 CE-M
R647 1.8K
R644 1K
D627 1SS254
D628 1SS254
SIDE PIN AMP.
P55B
37
TO MAIN P.W.B.
1
2
3
4
5
D626 1SS254
R652 18K
R653 27K
R651 68K
I621 SA4558
ONLY FOR
36UX52B/CZ77
36CX35B/CZ73
36FX42B/CZ75
Q650 2SC458 (B/C/D)
39
SIDE PIN DRIVE
R674
ONLY
36UX52B/CZ77
36FX42B/CZ75
36CX35B/CZ73
R654 18K
R648 330 RD1/4J
R645 1K
C630 MYL-K
R655
EXCEPT
36CX35B CZ73
R657 150K 1/8W
**
R658
R659 150K RD1/8J
R669 100K
C633 2.2/50 CE-M
R649 430 RD1/8J
R646 1K
Q651 2SC458 (C/D)
C637 10/50 CE-M
C632
K1
C735 2.2/50 CE-M
R752 22K
D721 HZT33-2
C751 47/50 CE-M
R754 2.7K RD1/8J
D720 1SS254
R760 82K
R758
R759
SIDE PIN DRIVE

ONLY FOR

36UX52B/CZ77
36CX35B/CZ73
36FX42B/CZ75

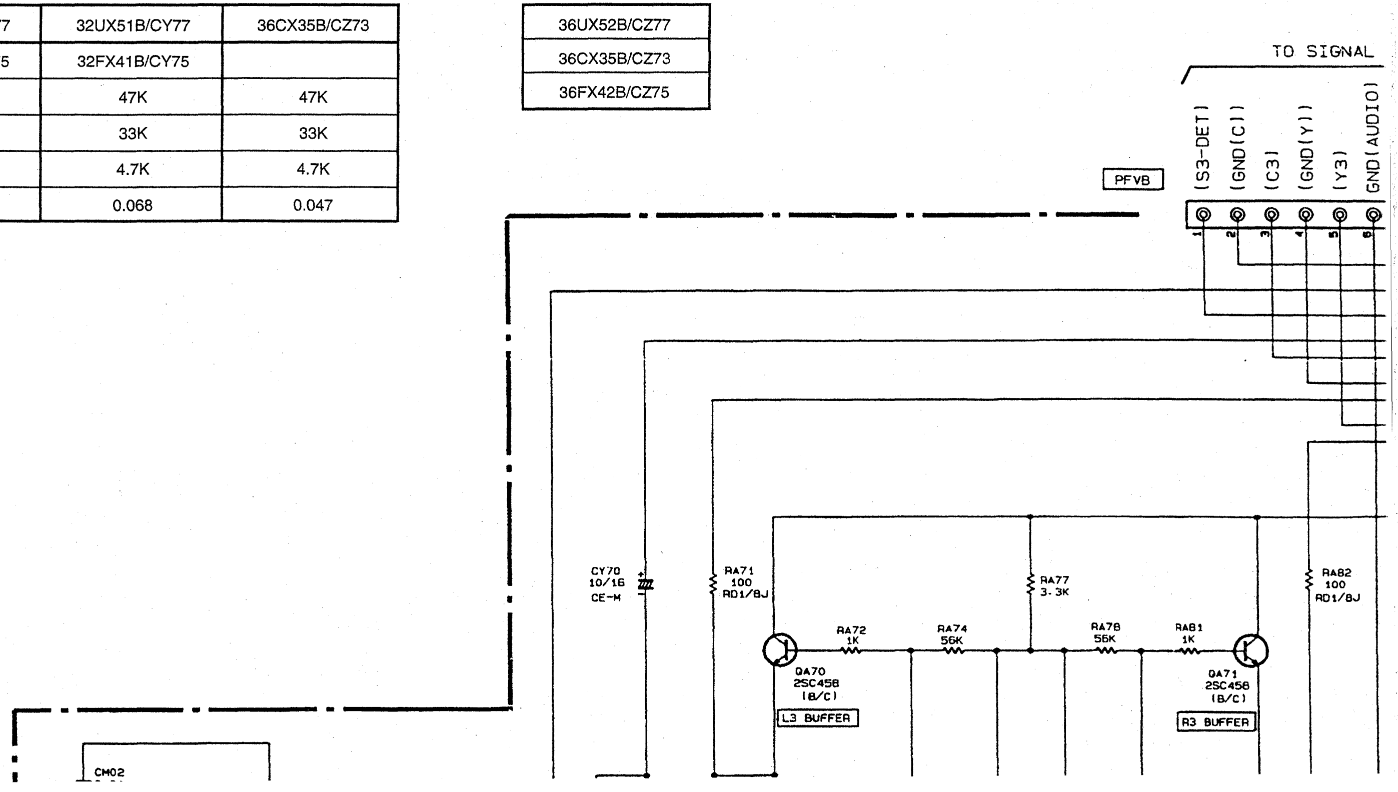

TO SELECTOR PART
KEY OUT
POWER
GND
KEY IN
PF1B
1
2
3
4
5
6
7
SM01
POWER
SM02
CH-UP
CH-DOWN
VOL-UP
VOL-DOWN
AVX
SM03
MENU
RM05 1K RD1/8J
CM03 1/50 CE-M
RM06 1K
RM07 1.5K
RM08 2.7K
RM09 4.7K
RM15 10K
CONTROL P.W.B. A

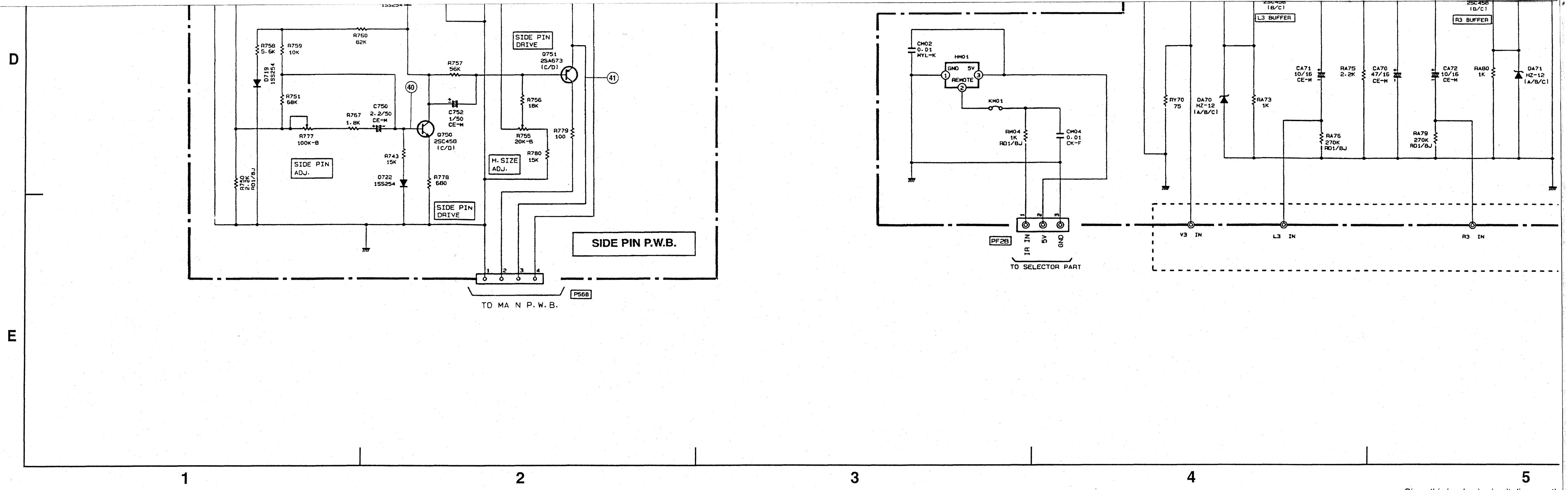
*

	36UX52B/CZ77	32UX51B/CY77	36CX35B/CZ73
	36FX42B/CZ75	32FX41B/CY75	
R655	27K	47K	47K
R656	27K	33K	33K
R674	2.2K	4.7K	4.7K
C630	0.082	0.068	0.047

ONLY FOR

36UX52B/CZ77
36CX35B/CZ73
36FX42B/CZ75


TO SIGNAL
(S3-DET)
(GND(C))
(C3)
(GND(Y))
(Y3)
GND(AUDIO)
PFVB
1
2
3
4
5
6
CY70 10/16 CE-M
RA71 100 RD1/8J
RA77 3.3K
RA82 100 RD1/8J
RA72 1K
RA74 56K
RA78 56K
RA81 1K
QA70 2SC458 (B/C)
L3 BUFFER
QA71 2SC458 (B/C)
R3 BUFFER
CM02



D
E
1
2
3
4
5
SIDE PIN DRIVE
Q751 2SA673 (C/D)
Q750 2SC458 (C/D)
R760 82K
R758 5.6K
R759 10K
D719 1SS254
R757 56K
R751 68K
C750 2.2/50 CE-M
C752 1/50 CE-M
R756 18K
R767 1.8K
R777 100K-B
R755 20K-B
R779 100
R780 15K
R743 15K
D722 1SS254
R778 680
R750 2.2K RD1/8J
SIDE PIN ADJ.
H.SIZE ADJ.
SIDE PIN P.W.B.
P568
TO MAIN P.W.B.
40
41
CM02 0.01 MYL-K
HM01
GND 5V REMOTE
KM01
RM04 1K RD1/8J
CM04 0.01 CK-F
PF28
IR IN
5V
GND
TO SELECTOR PART
L3 BUFFER
R3 BUFFER
RY70 75
DA70 HZ-12 (A/B/C)
RA73 1K
CA71 10/16 CE-M
RA75 2.2K
CA70 47/16 CE-M
CA72 10/16 CE-M
RA80 1K
DA71 HZ-12 (A/B/C)
RA76 270K RD1/8J
RA79 270K RD1/8J
V3 IN
L3 IN
R3 IN

- Since this is a basic circuit diagram, th
- All DC voltage to be measured with a t

CIRCUIT No.	Pin No.	DC Voltage Vdc
I621	1	5
	2	5
	3	5
	4	0
	5	5
	6	5
	7	6
	8	11

CIRCUIT No.	Pin No.	DC Voltage Vdc
Q650	B	6
	C	5
	E	5
Q651	B	4.5
	C	33
	E	4
Q750	B	1
	C	13.5
	E	0.5
Q751	B	18
	C	0.6
	E	18
* QA70	B	4
	C	12
	E	3
*QA71	B	3.5
	C	12
	E	3
*HMO1	1	0
	2	0
	3	5

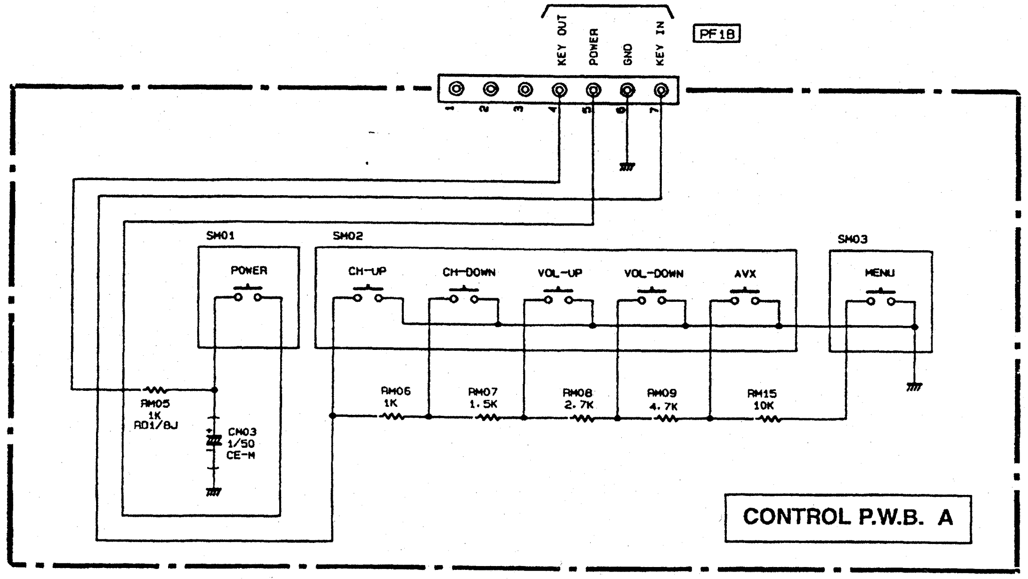
CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77, 32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

SIDE PIN P.W.B. AND CONTROL P.W.B.

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ONLY FOR

36UX52B/CZ77
36CX35B/CZ73
36FX42B/CZ75

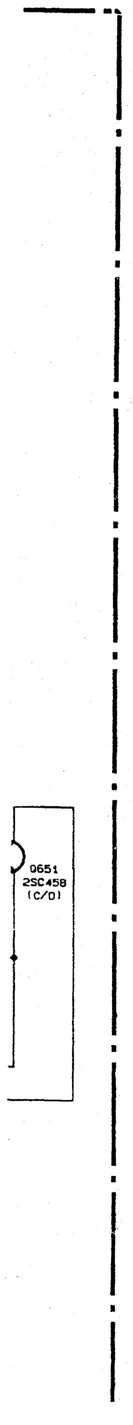

3
4
5
6
A
B
C
D
TO SELECTOR PART
KEY OUT
POWER
GND
KEY IN
PF1B
1
2
3
4
5
6
7
SM01
SM02
SM03
POWER
CH-UP
CH-DOWN
VOL-UP
VOL-DOWN
AVX
MENU
RM05 1K RD1/8J
CM03 1/50 CE-M
RM06 1K
RM07 1.5K
RM08 2.7K
RM09 4.7K
RM15 10K
CONTROL P.W.B. A

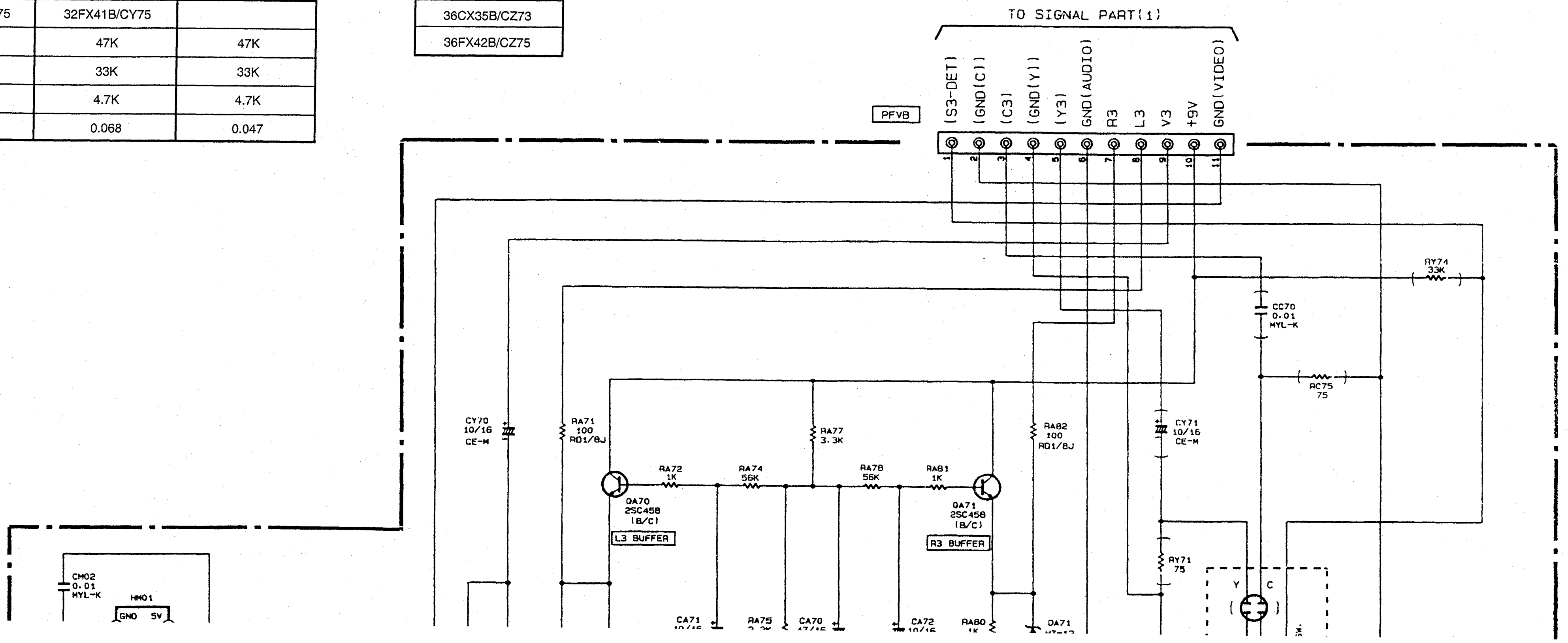
*

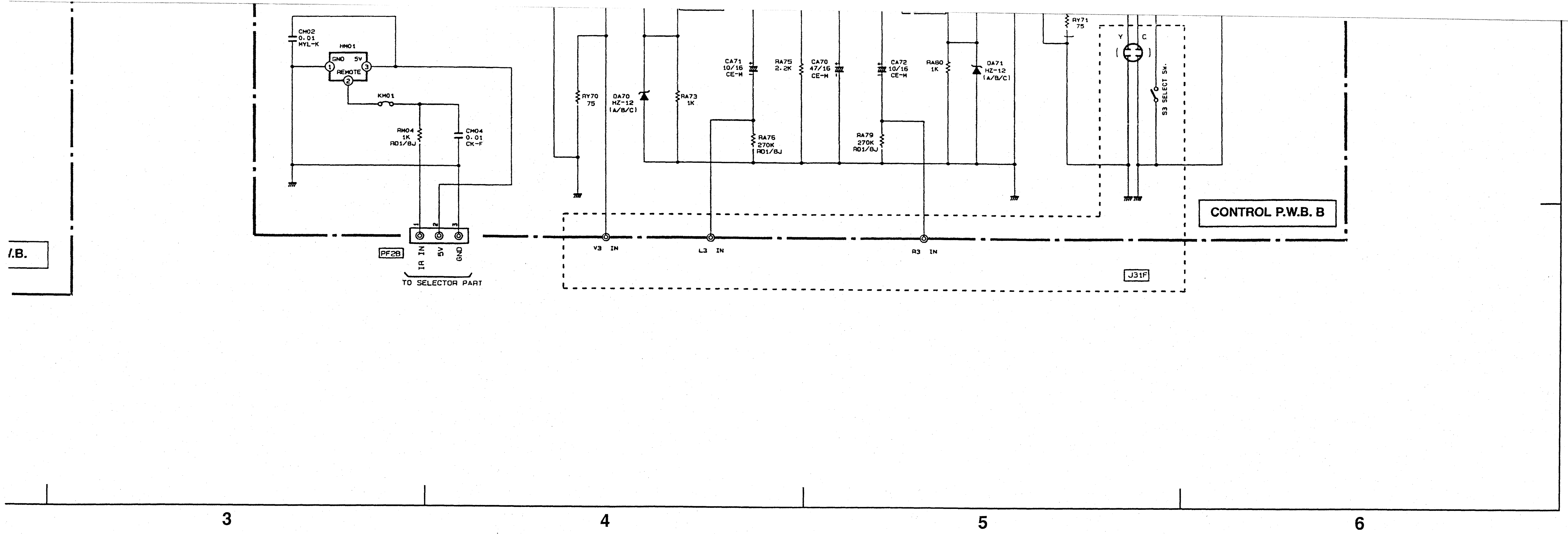
	36UX52B/CZ77	32UX51B/CY77	36CX35B/CZ73
	36FX42B/CZ75	32FX41B/CY75	
R655	27K	47K	47K
R656	27K	33K	33K
R674	2.2K	4.7K	4.7K
C630	0.082	0.068	0.047

ONLY FOR

36UX52B/CZ77
36CX35B/CZ73
36FX42B/CZ75


Q651
2SC458
(C/D)


TO SIGNAL PART(1)
PFVB
(S3-DET)
(GND(C))
(C3)
(GND(Y))
(Y3)
GND(AUDIO)
R3
L3
V3
+9V
GND(VIDEO)
1
2
3
4
5
6
7
8
9
10
11
RY74 33K
CC70 0.01 MYL-K
RC75 75
CY70 10/16 CE-M
RA71 100 RD1/8J
RA77 3.3K
RA82 100 RD1/8J
CY71 10/16 CE-M
RA72 1K
RA74 56K
RA78 56K
RA81 1K
QA70 2SC458 (B/C)
L3 BUFFER
QA71 2SC458 (B/C)
R3 BUFFER
RY71 75
Y
C
CM02 0.01 MYL-K
HM01
GND
5V
CA71
RA75
CA70
CA72
RA80 1K
DA71

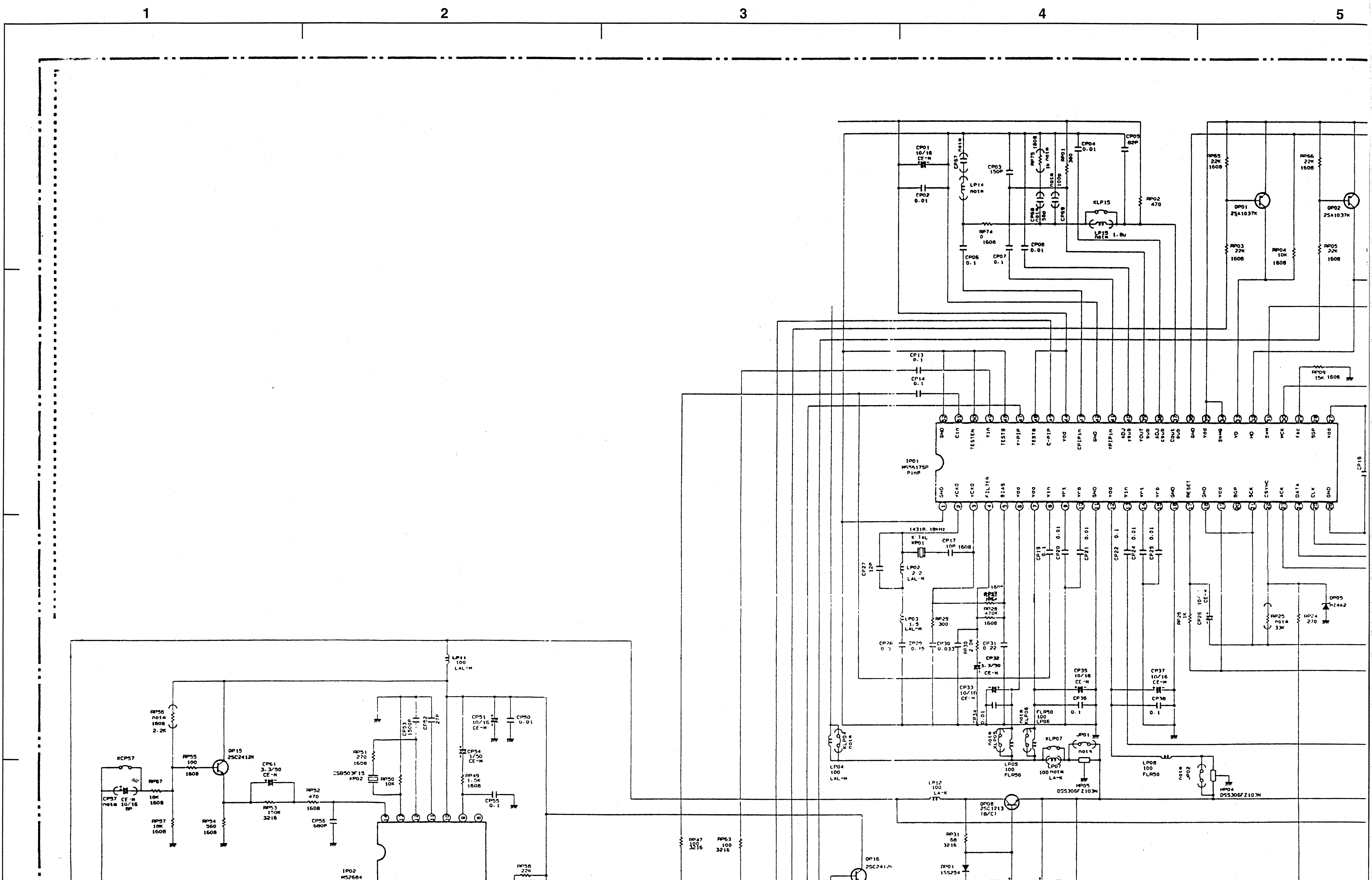

CM02
0.01
MYL-K
HM01
GND
5V
REMOTE
①
②
③
KM01
RM04
1K
RD1/8J
CM04
0.01
CK-F
1
2
3
PF28
IR IN
5V
GND
TO SELECTOR PART
RY70
75
DA70
HZ-12
(A/B/C)
RA73
1K
CA71
10/16
CE-M
RA75
2.2K
CA70
47/16
CE-M
RA76
270K
RD1/8J
CA72
10/16
CE-M
RA79
270K
RD1/8J
RA80
1K
DA71
HZ-12
(A/B/C)
RY71
75
Y
C
S3 SELECT SW.
V3 IN
L3 IN
R3 IN
J31F
CONTROL P.W.B. B
/.B.
D
E
3
4
5
6

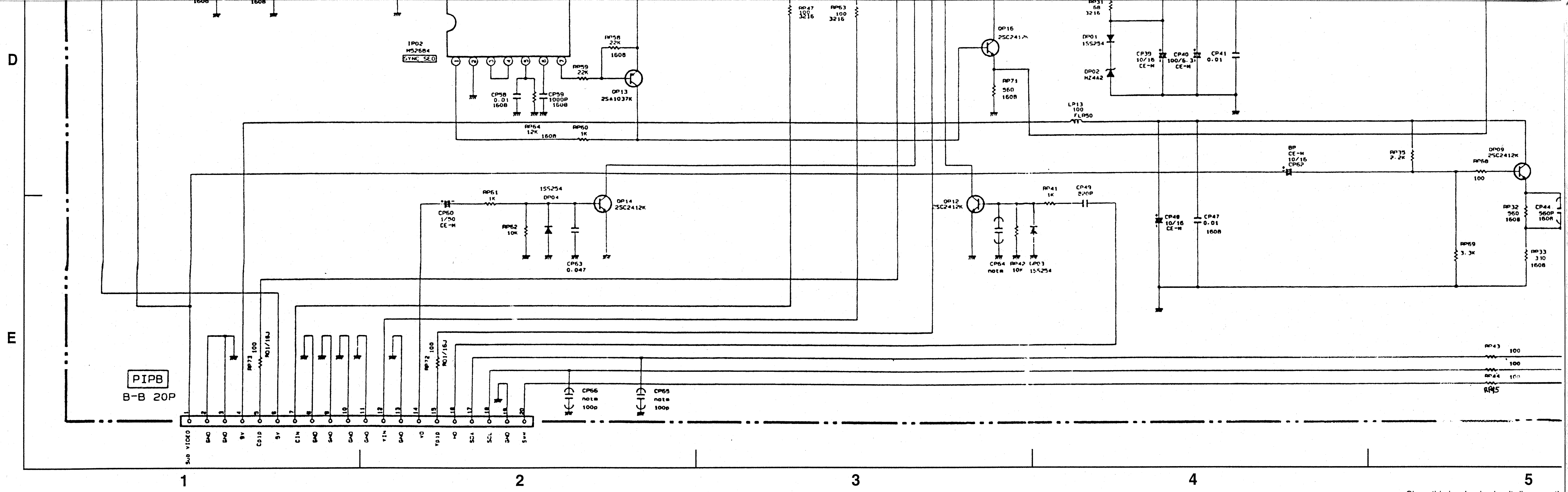
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77,32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

PICTURE IN PICTURE (PIP) P.W.B.

PRODUCT SAFETY NOTE: Components ma
any of these components, read carefully the
through improper servicing.


1
2
3
4
5
A
B
C
IP01
M55617SP
PinP
IP02
M52684
CP01 10/16 CE-M
CP02 0.01
CP03 150P
CP04 0.01
CP05 82P
CP06 0.1
CP07 0.1
CP08 0.01
LP14 note
KLP15
LP15 note 1.8u
RP74 0 1608
RP01 390
RP02 470
RP65 22K 1608
RP66 22K 1608
RP03 22K 1608
RP04 10K 1608
RP05 22K 1608
QP01 2SA1037K
QP02 2SA1037K
CP13 0.1
CP14 0.1
RP09 15K 1608
GND
Cin
TESTEN
Tin
TEST9
Y-PIP
TEST8
C-PIP
VDD
CPIPin
YPIPin
ADJ YBUO
YOUT BUO
ADJ CBUO
COUT BUO
VDD
SWHD
VD
HD
SWH
MCK
fsc
SGP
VCXO
FILTER
BIAS
Vin
Vrt
Vrb
RESET
VCO
BGP
SCK
CSYNC
ACK
DATA
CLK
14318.184KHz
X'TAL XP01
CP17 10P 1608
CP27 12P
LP02 22 LAL-M
LP03 1.5 LAL-M
RP29 300
RP28 470K 1608
CP19 0.1
CP20 0.01
CP21 0.01
CP22 0.1
CP24 0.01
CP25 0.01
CP31 0.22
CP32 3.3/50 CE-M
CP33 10/16 CE-M
CP35 10/16 CE-M
CP36 0.1
CP37 10/16 CE-M
CP38 0.1
RP25 note 33K
RP24 270
DP05 HZ4A2
LP04 100 LAL-M
KLP04 note
LP05 100 FLR50
LP06 100 FLR50
KLP07
LP07 100 note LA-K
JP01 note
HP05 DSS306FZ103N
LP08 100 FLR50
JP02 note
HP04 DSS306FZ103N
LP12 100 LA-K
QP08 2SC1213 (B/C)
RP31 68 3216
DP01 1SS254
QP16 2SC2412K
RP47 100 3216
RP63 100 3216
LP11 100 LAL-M
RP56 note 1608 2.2K
RP55 100 1608
QP15 2SC2412K
KCP57
CP57 CE-M note 10/16 BP
RP67 18K 1608
RP57 18K 1608
RP54 560 1608
CP61 3.3/50 CE-M
RP53 150K 3216
RP52 470 1608
CP56 680P
RP51 270 1608
CSB503F15 XP02
RP50 10K
CP53 150P
CP52 27P
CP51 10/16 CE-M
CP50 0.01
CP54 1/50 CE-M
RP49 1.5K 1608
CP55 0.1
RP58 22K



D
E
IP02
M52684
SYNC SEP
RP58
22K
1608
RP59
22K
QP13
2SA1037K
CP58
0.01
1608
CP59
1000P
1608
RP64
12K
1608
RP60
1K
RP47
100
3216
RP63
100
3216
QP16
2SC2412K
RP71
560
1608
RP31
68
3216
DP01
1SS254
DP02
HZ4A2
CP39
10/16
CE-M
CP40
100/6.3
CE-M
CP41
0.01
LP13
100
FLP50
BP
CE-M
10/16
CP62
RP35
2.2K
QP09
2SC2412K
RP68
100
RP61
1K
1SS254
DP04
CP60
1/50
CE-M
RP62
10K
CP63
0.047
QP14
2SC2412K
QP12
2SC2412K
RP41
1K
CP43
820P
CP64
note
RP42
10K
DP03
1SS254
CP48
10/16
CE-M
CP47
0.01
1608
RP32
560
1608
CP44
560P
1608
RP69
3.3K
RP33
330
1608
RP73
100
R01/16J
RP72
100
R01/16J
CP66
note
100p
CP65
note
100p
RP43
100
100
RP44
100
RP45
PIPB
B-B 20P
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
SUB VIDEO
GND
GND
9V
CD1D
5V
CIN
GND
GND
GND
GND
YIN
GND
VD
VD1D
HD
SDA
SCL
GND
SW5
1
2
3
4
5

- Since this is a basic circuit diagram, th
- All DC voltage to be measured with a t

CIRCUIT No.	Pin No.	DC Voltage Vdc
IP01	1	0
	2	1.5
	3	1.5
	4	1.5
	5	1.5
	6	3.5
	7	3.5
	8	1
	9	1.5
	10	0.5
	11	0
	12	3.5
	13	1
	14	1.5
	15	0.5
	16	0
	17	3.5
	18	0
	19	3.5
	20	0
	21	0
	22	0.5
	23	0
	24	3
	25	3
IP01	26	0
	27	3.5
	28	3.5
	29	0
	30	0
	31	0
	32	0.5
	33	0
	34	3
	35	3
	36	0
	37	3
	38	1
	39	2.2
	40	1.2
	41	0.5
	42	0
	43	1
	44	3
	45	1
	46	3
	47	1
	48	0
	49	1
	50	0
	51	1
	52	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
IP02	1	1
	2	0
	3	1
	4	1
	5	1
	6	0.5
	7	3.5
	8	3.5
	9	2.5
	10	4.5
	11	2
	12	2
	13	2
	14	2.5

CIRCUIT No.	Pin No.	DC Voltage Vdc
QP01	B	3
	C	0
	E	3
QP02	B	3
	C	0.5
	E	3
QP05	B	3.5
	C	3
	E	3
QP06	B	3.5
	C	3
	E	3
QP07	B	0
	C	4
	E	0
QP08	B	4
	C	4.5
	E	3.5
QP09	B	
	C	
	E	
QP12	B	
	C	
	E	
QP13	B	
	C	
	E	4.
QP14	B	
	C	
	E	
QP15	B	1.
	C	
	E	
QP16	B	
	C	4.
	E	0.

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77,32UX51B/CY77, 36FX42B/CZ75, 32FX41B/CY75 AND 36CX35B/CZ73

PICTURE IN PICTURE (PIP) P.W.B.

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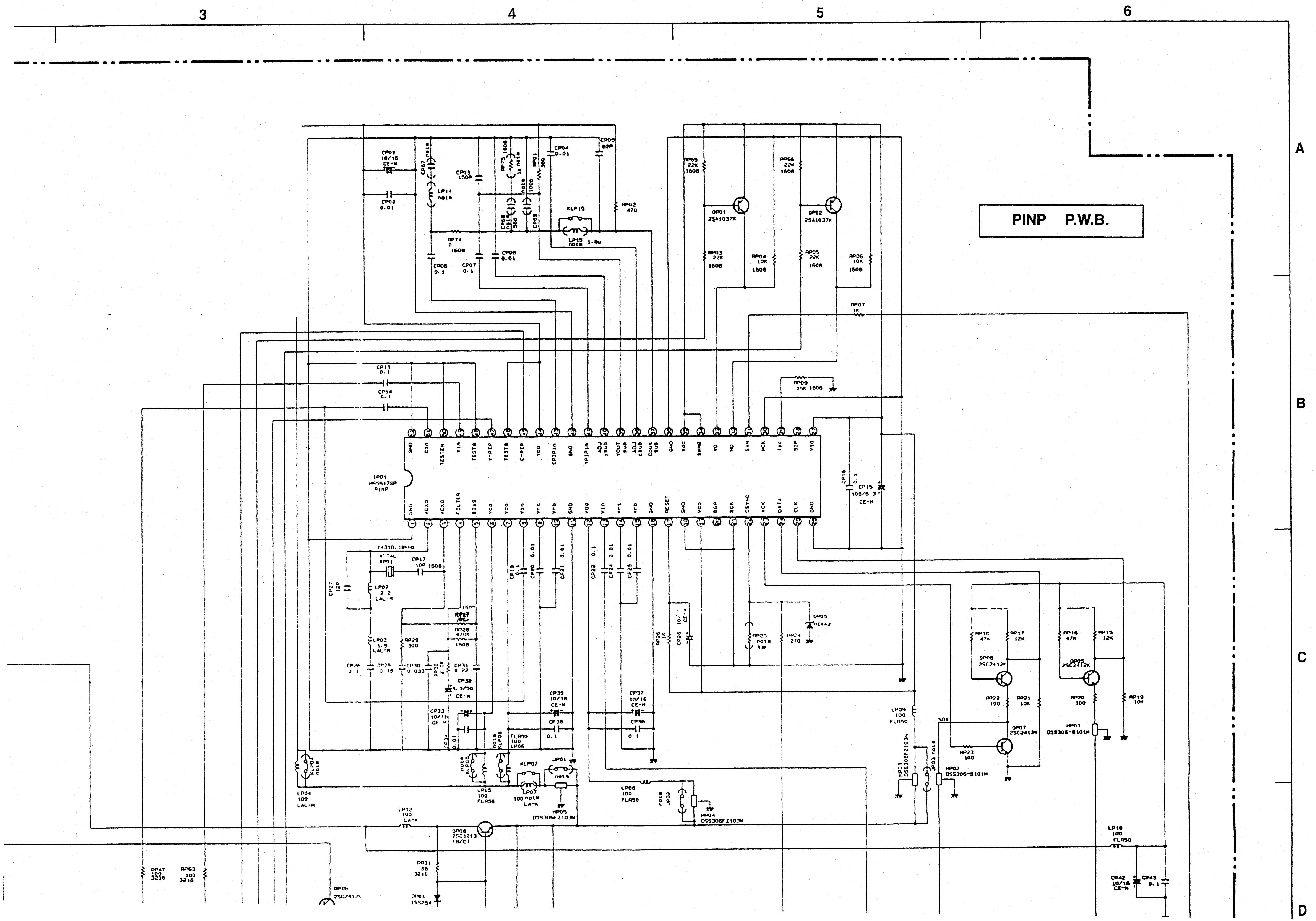
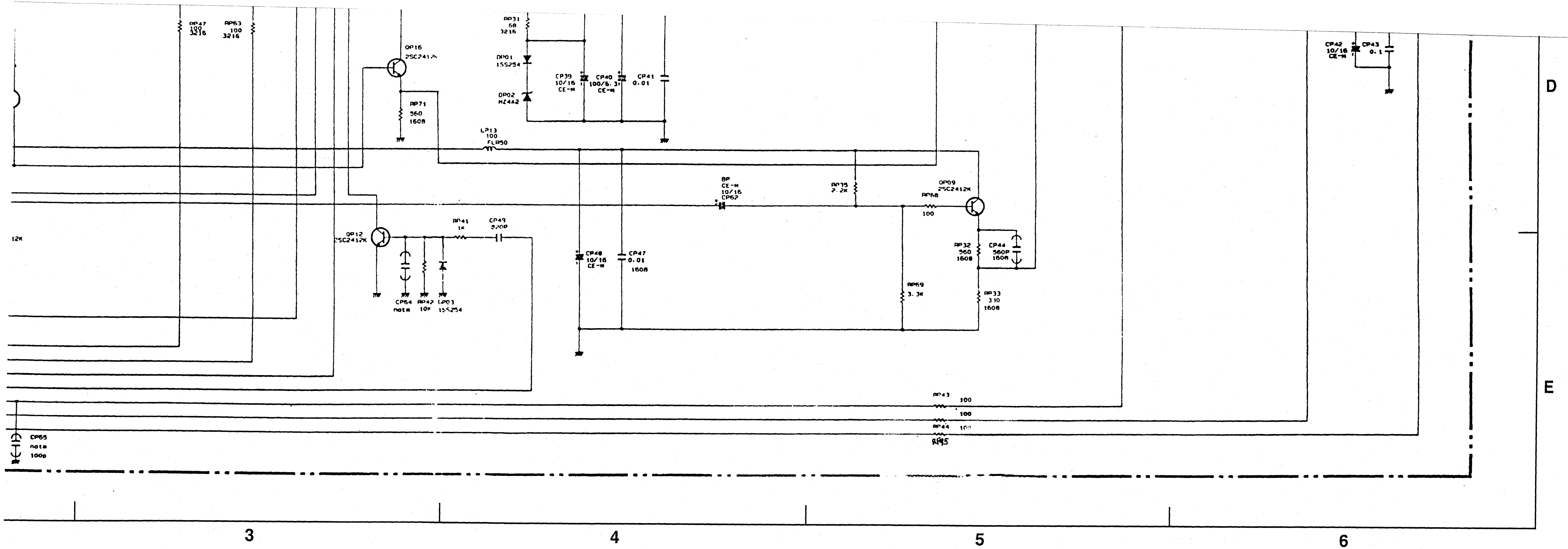

3
4
5
6
A
B
C
D
PINP P.W.B.
CP01 10/16 CE-M
CP02 0.01
CP67 note
LP14 note
CP03 150P
RP75 1608 1k note
RP01 360
CP68 note 56p
CP69 note 100p
CP04 0.01
CP05 82P
RP02 470
KLP15
LP15 note 1.8u
RP74 0 1608
CP06 0.1
CP07 0.1
CP08 0.01
RP65 22K 1608
QP01 2SA1037K
RP03 22K 1608
RP04 10K 1608
RP66 22K 1608
QP02 2SA1037K
RP05 22K 1608
RP06 10K 1608
RP07 1K
RP09 15K 1608
CP13 0.1
CP14 0.1
IP01 M65617SP PinP
GND
Cin
TESTEN
Yin
TEST9
Y-PIP
TEST8
C-PIP
Vdd
CPIPin
GND
YPIPin
ADJ YSUB
YOUT SUB
ADJ CSUB
Cout SUB
GND
Vdd
SWHG
VD
HD
SW
HCK
fsc
SGP
Vdd
GND
VCXO
VCXO
FILTER
BIAS
Vdd
Vdd
Vin
Vrt
Vrb
GND
Vdd
Vin
Vrt
Vrb
GND
RESET
GND
Vcc
BGP
SCK
CSYNC
ACK
DATA
CLK
GND
CP16 0.1
CP15 100/6 3 CE-M
14318.18MHz
X'TAL XP01
CP17 10P 1608
CP27 12P
LP02 2.2 LAL-M
CP19 0.1
CP20 0.01
CP21 0.01
CP22 0.1
CP24 0.01
CP25 0.01
RP27 10K
RP28 470K 1608
LP03 1.5 LAL-M
RP29 300
CP28 0.1
CP29 0.15
CP30 0.033
RP30 2.0K
CP31 0.22
CP32 3.3/50 CE-M
CP33 10/16 CE-M
CP34 0.01
CP35 10/16 CE-M
CP36 0.1
CP37 10/16 CE-M
CP38 0.1
FLR50 100 LP06
KLP04 note
XLP05 note
XLP06 note
KLP07
JP01 note
LP04 100 LAL-M
LP05 100 FLR50
LP07 100 note LA-K
HP05 DSS306FZ103N
LP08 100 FLR50
JP02 note
HP04 DSS306FZ103N
RP26 1K
CP26 10/ CE-M
RP25 note 33K
HP24 270
DP05 HZ4A2
LP09 100 FLR50
HP03 DSS306FZ103N
JP03 note
HP02 DSS306-B101M
SDA
RP18 47K
RP17 12K
QP06 2SC2412K
RP22 100
RP21 10K
QP07 2SC2412K
RP23 100
RP16 47K
RP15 12K
QP05 2SC2412K
RP20 100
RP19 10K
HP01 DSS306-B101M
LP10 100 FLR50
CP42 10/16 CE-M
CP43 0.1
LP12 100 LA-K
QP08 2SC1213 (B/C)
RP31 68 3216
DP01 1SS254
RP47 100 3216
RP63 100 3216
QP16 2SC2412K


RP47
100
3216
RP63
100
3216
QP16
2SC2412K
RP71
560
1608
RP31
68
3216
DP01
1SS254
DP02
HZ4A2
CP39
10/16
CE-M
CP40
100/6.3
CE-M
CP41
0.01
LP13
100
FLR50
12K
QP12
2SC2412K
RP41
1K
CP43
820P
CP64
nota
RP42
10K
DP03
1SS254
CP48
10/16
CE-M
CP47
0.01
1608
BP
CE-M
10/16
CP62
RP35
2.2K
QP09
2SC2412K
RP68
100
RP32
560
1608
CP44
560P
1608
RP69
3.3K
RP33
330
1608
CP42
10/16
CE-M
CP43
0.1
RP43
100
100
RP44
100
RP45
CP65
nota
100p
D
E
3
4
5
6

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT No.	Pin No.	DC Voltage Vdc
IP02	1	1
	2	0
	3	1
	4	1
	5	1
	6	0.5
	7	3.5
	8	3.5
	9	2.5
	10	4.5
	11	2
	12	2
	13	2
	14	2.5

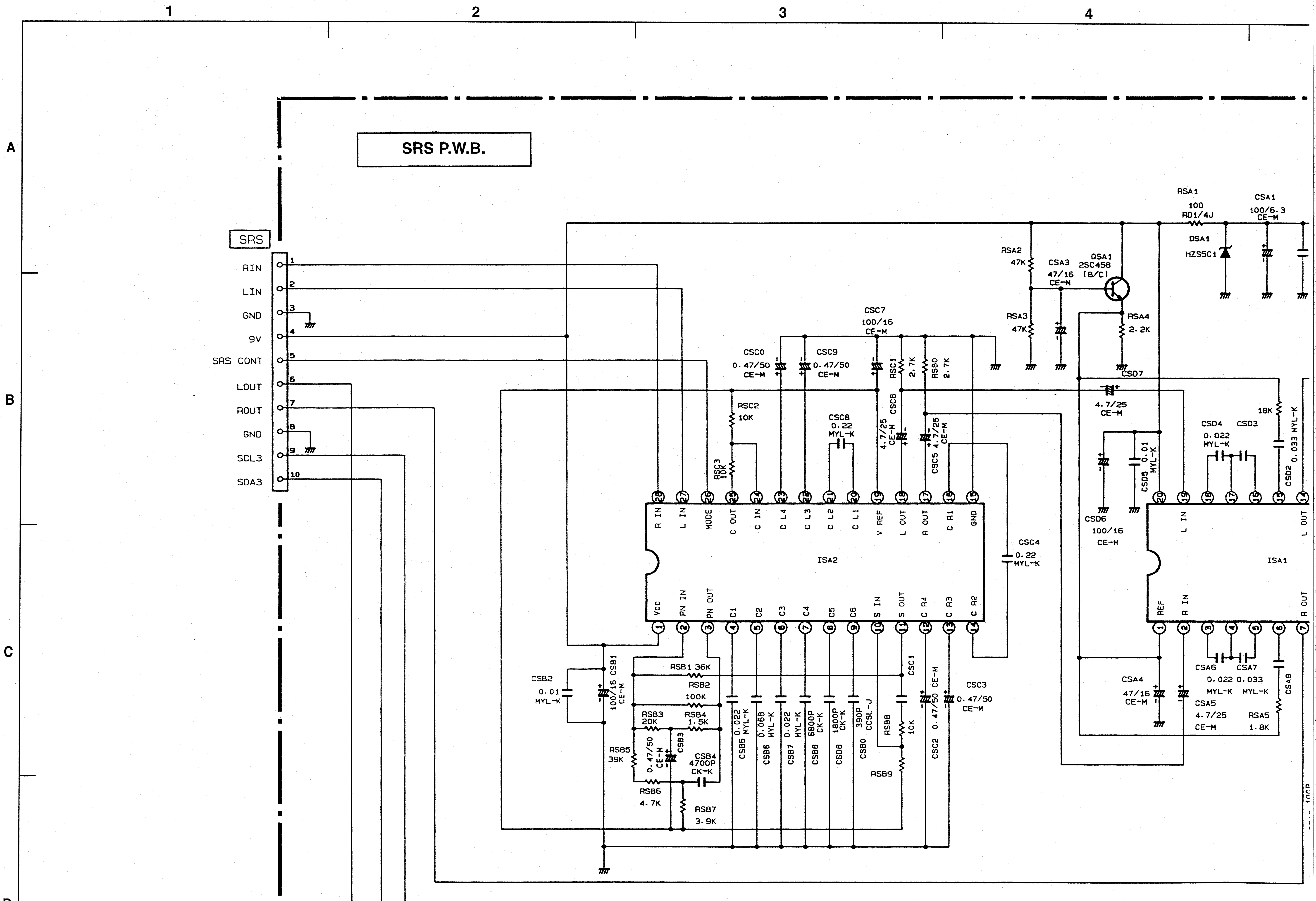
CIRCUIT No.	Pin No.	DC Voltage Vdc
QP01	B	3
	C	0
	E	3
QP02	B	3
	C	0.5
	E	3
QP05	B	3.5
	C	3
	E	3
QP06	B	3.5
	C	3
	E	3
QP07	B	0
	C	4
	E	0
QP08	B	4
	C	4.5
	E	3.5

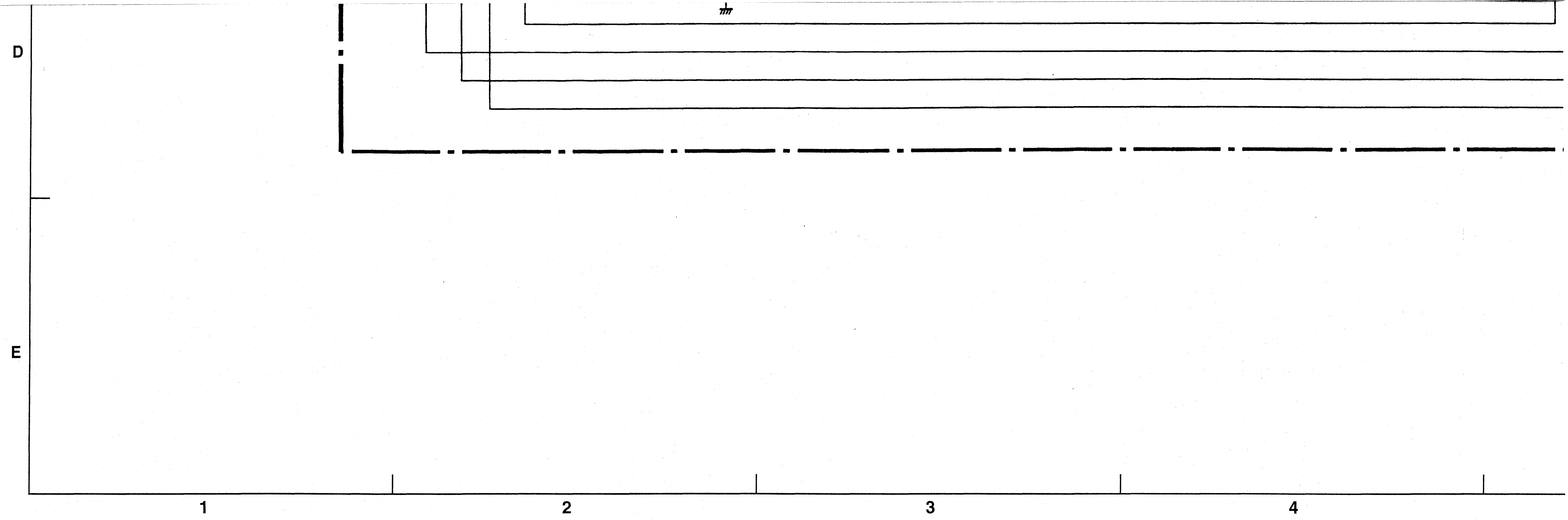
QP09	B	5
	C	9
	E	5
QP12	B	0
	C	3
	E	0
QP13	B	4
	C	1
	E	4.5
QP14	B	0
	C	3
	E	0
QP15	B	1.5
	C	4
	E	1
QP16	B	1
	C	4.5
	E	0.5

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77 AND 32UX51B/CY77

SOUND RETRIEVAL SYSTEM (SRS) P.W.B.

PRODUCT SAFETY NOTI
any of these components,
through improper servicing


1
2
3
4
A
B
C
D
SRS P.W.B.
SRS
RIN
LIN
GND
9V
SRS CONT
LOUT
ROUT
GND
SCL3
SDA3
1
2
3
4
5
6
7
8
9
10
RSA1
100
RD1/4J
CSA1
100/6.3
CE-M
DSA1
HZS5C1
RSA2
47K
CSA3
47/16
CE-M
QSA1
2SC458
(B/C)
RSA3
47K
RSA4
2.2K
CSC7
100/16
CE-M
CSC0
0.47/50
CE-M
CSC9
0.47/50
CE-M
RSC1
2.7K
RSB0
2.7K
CSD7
4.7/25
CE-M
18K
0.033 MYL-K
CSD2
RSC2
10K
CSC8
0.22
MYL-K
CSC6
4.7/25
CE-M
CSC5
4.7/25
CE-M
RSC3
10K
CSD4
0.022
MYL-K
CSD3
CSD5
0.01
MYL-K
CSD6
100/16
CE-M
R IN
L IN
MODE
C OUT
C IN
C L4
C L3
C L2
C L1
V REF
L OUT
R OUT
C R1
GND
ISA2
Vcc
PN IN
PN OUT
C1
C2
C3
C4
C5
C6
S IN
S OUT
C R4
C R3
C R2
CSC4
0.22
MYL-K
ISA1
REF
R IN
L IN
L OUT
R OUT
CSB2
0.01
MYL-K
CSB1
100/16
CE-M
RSB1 36K
RSB2
100K
RSB3
20K
RSB4
1.5K
RSB5
39K
CSB3
0.47/50
CE-M
CSB4
4700P
CK-K
RSB6
4.7K
RSB7
3.9K
CSB5
0.022
MYL-K
CSB6
0.068
MYL-K
CSB7
0.022
MYL-K
CSB8
6800P
CK-K
CSD8
1800P
CK-K
CSB0
390P
CCSL-J
RSB8
10K
RSB9
CSC1
CSC2
0.47/50 CE-M
CSC3
0.47/50
CE-M
CSA4
47/16
CE-M
CSA5
4.7/25
CE-M
CSA6
0.022
MYL-K
CSA7
0.033
MYL-K
CSA8
RSA5
1.8K



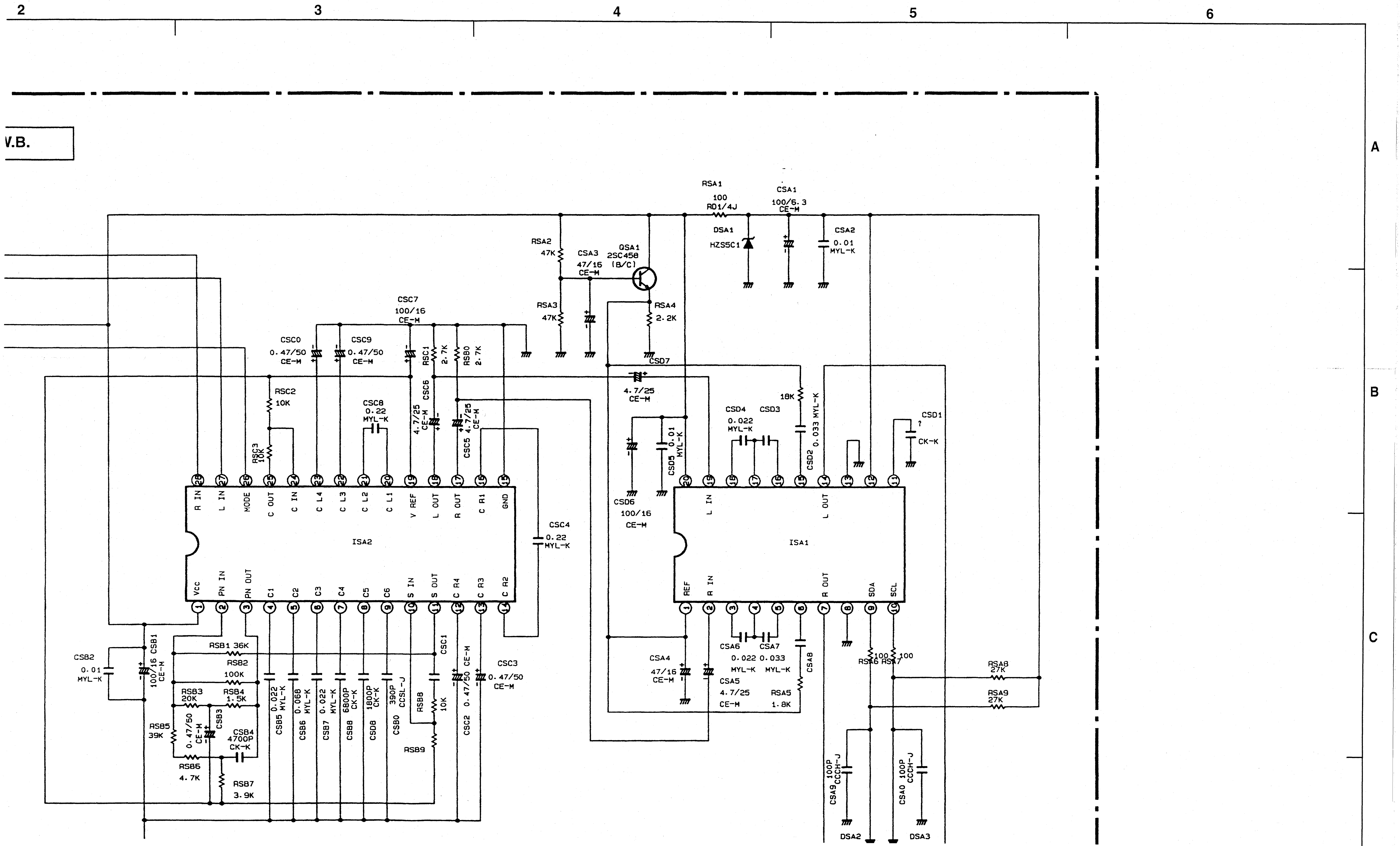
- Since this
- All DC vo

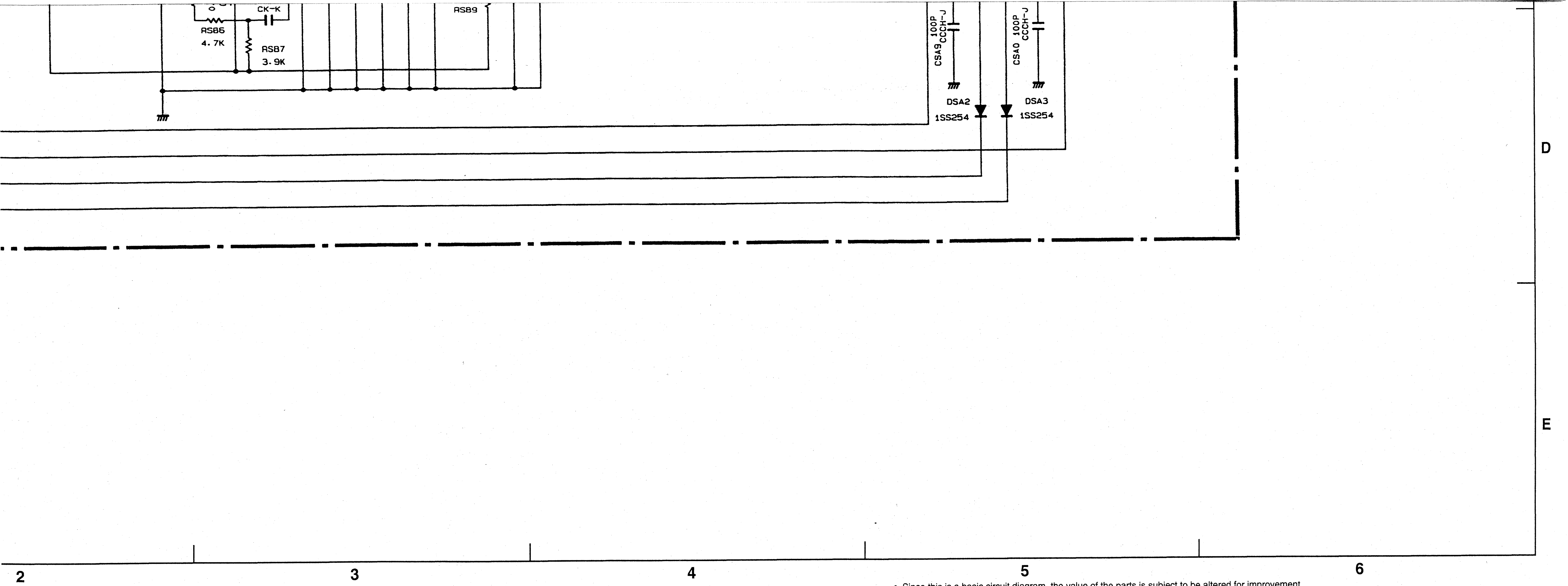
CIRCUIT No.
ISA2

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77 AND 32UX51B/CY77

SOUND RETRIEVAL SYSTEM (SRS) P.W.B.

PRODUCT SAFETY NOTE: Components marked with a ⚠ and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


2
3
4
5
6
A
B
C
.B.
RSA1
100
RD1/4J
CSA1
100/6.3
CE-M
DSA1
HZS5C1
CSA2
0.01
MYL-K
RSA2
47K
CSA3
47/16
CE-M
QSA1
2SC458
(B/C)
RSA3
47K
RSA4
2.2K
CSC7
100/16
CE-M
CSC0
0.47/50
CE-M
CSC9
0.47/50
CE-M
RSC1
2.7K
RS80
2.7K
CSD7
4.7/25
CE-M
RSC2
10K
CSC8
0.22
MYL-K
CSC6
4.7/25
CE-M
CSC5
4.7/25
CE-M
RSC3
10K
18K
CSD2
0.033 MYL-K
CSD4
0.022
MYL-K
CSD3
CSD1
?
CK-K
CSD5
0.01
MYL-K
CSD6
100/16
CE-M
R IN
L IN
MODE
C OUT
C IN
C L4
C L3
C L2
C L1
V REF
L OUT
R OUT
C R1
GND
ISA2
Vcc
PN IN
PN OUT
C1
C2
C3
C4
C5
C6
S IN
S OUT
C R4
C R3
C R2
CSC4
0.22
MYL-K
L IN
L OUT
ISA1
REF
R IN
R OUT
SDA
SCL
CSB2
0.01
MYL-K
CSB1
100/16
CE-M
RSB1 36K
RSB2
100K
RSB3
20K
RSB4
1.5K
RSB5
39K
CSB3
0.47/50
CE-M
CSB4
4700P
CK-K
RSB6
4.7K
RSB7
3.9K
CSB5
0.022
MYL-K
CSB6
0.068
MYL-K
CSB7
0.022
MYL-K
CSB8
6800P
CK-K
CSD8
1800P
CK-K
CSB0
390P
CCSL-J
RSB8
10K
RSB9
CSC1
CSC2
0.47/50
CE-M
CSC3
0.47/50
CE-M
CSA4
47/16
CE-M
CSA5
4.7/25
CE-M
CSA6
0.022
MYL-K
CSA7
0.033
MYL-K
CSA8
RSA5
1.8K
RSA6
100
RSA7
100
RSA8
27K
RSA9
27K
CSA9
100P
CCCH-J
CSA0
100P
CCCH-J
DSA2
DSA3


CK-K
RS86
4.7K
RS87
3.9K
RS89
CSA9 100P CCCH-J
CSA0 100P CCCH-J
DSA2
1SS254
DSA3
1SS254
D
E
2
3
4
5
6

- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT No.	Pin No.	DC Voltage Vdc
ISA2	1	9
	2	4.5
	3	4.5
	4	4.5
	5	4.5
	6	4.5
	7	4.5
	8	4.5
	9	4.5
	10	4.5
	11	4.5
	12	4.5
	13	4.5
	14	4.5
	15	0
	16	4.5
	17	4.5
	18	4.5
	19	4.5
	20	4.5
	21	4.5
	22	4.5
	23	4.5
	24	4.5
	25	4.5
	26	1.5
	27	1.5
	28	1.5

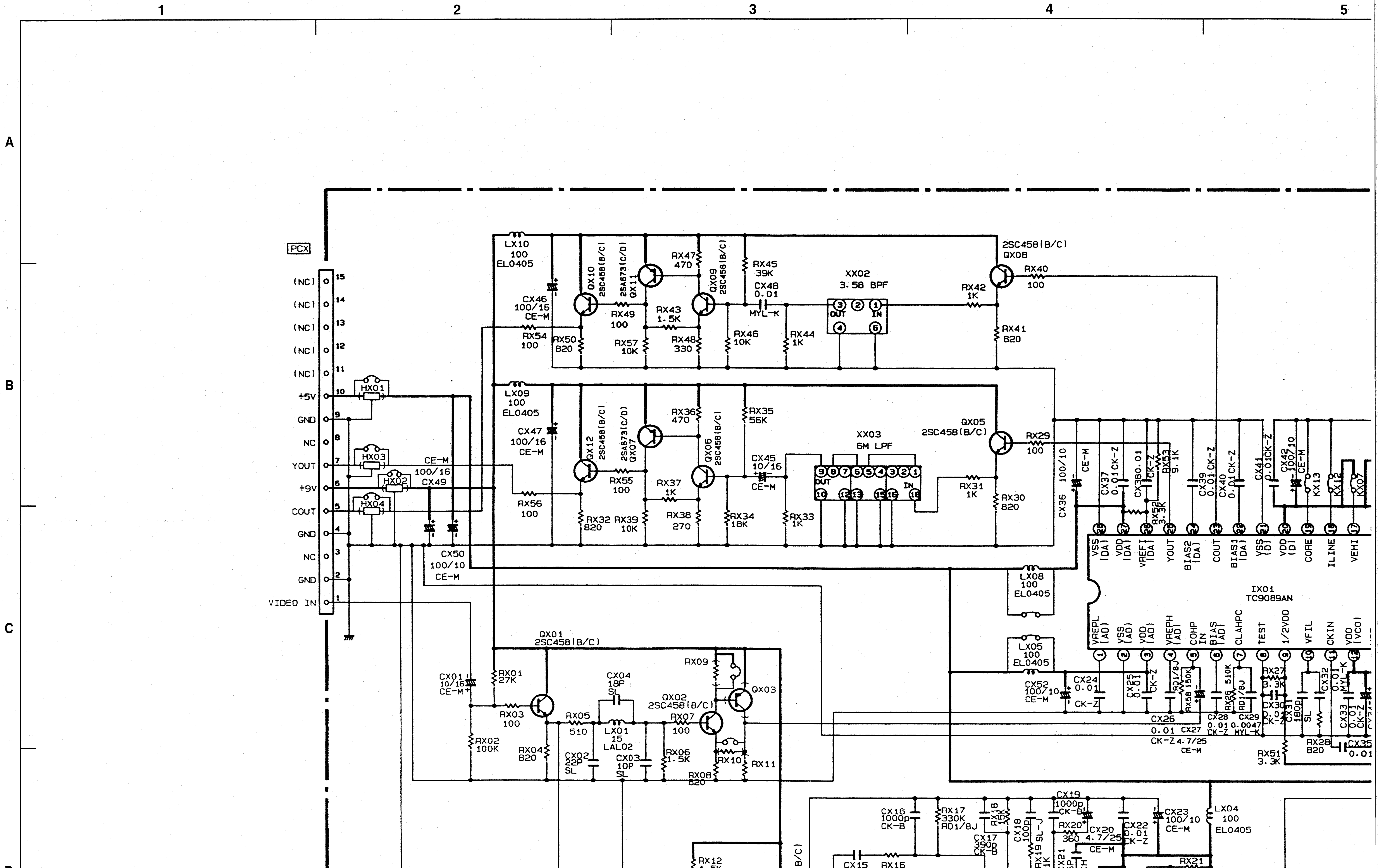
CIRCUIT No.	Pin No.	DC Voltage Vdc
ISA1	1	3.5
	2	3.5
	3	3.5
	4	3.5
	5	3.5
	6	3.5
	7	3.5
	8	0
	9	5
	10	4
	11	5
	12	5
	13	0
	14	3.5
	15	3.5
	16	3.5
	17	3.5
	18	3.5
	19	3.5
	20	3.5

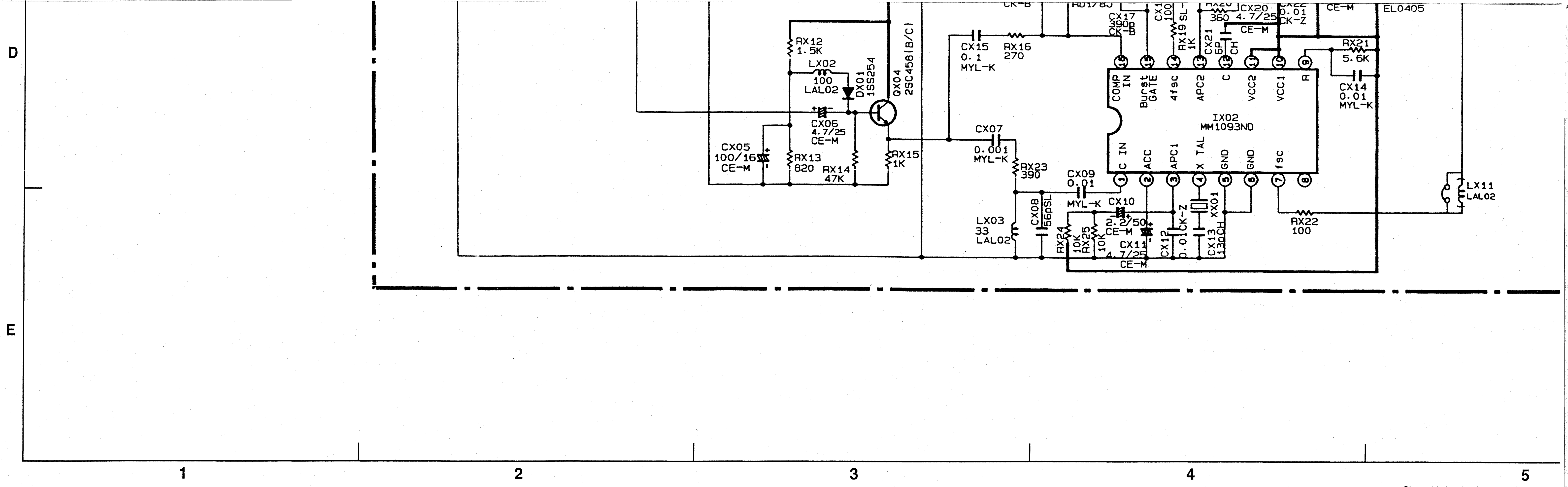
CIRCUIT No.	Pin No.	DC Voltage Vdc
QSA1	B	4.5
	C	9
	E	3.5

CIRCUIT SCHEMATIC DIAGRAM OF 36UX52B/CZ77 AND 32UX51B/CY77

3 LINE COMB FILTER P.W.B.

PRODUCT SAFETY NOTE: Components ma
any of these components, read carefully the
through improper servicing.

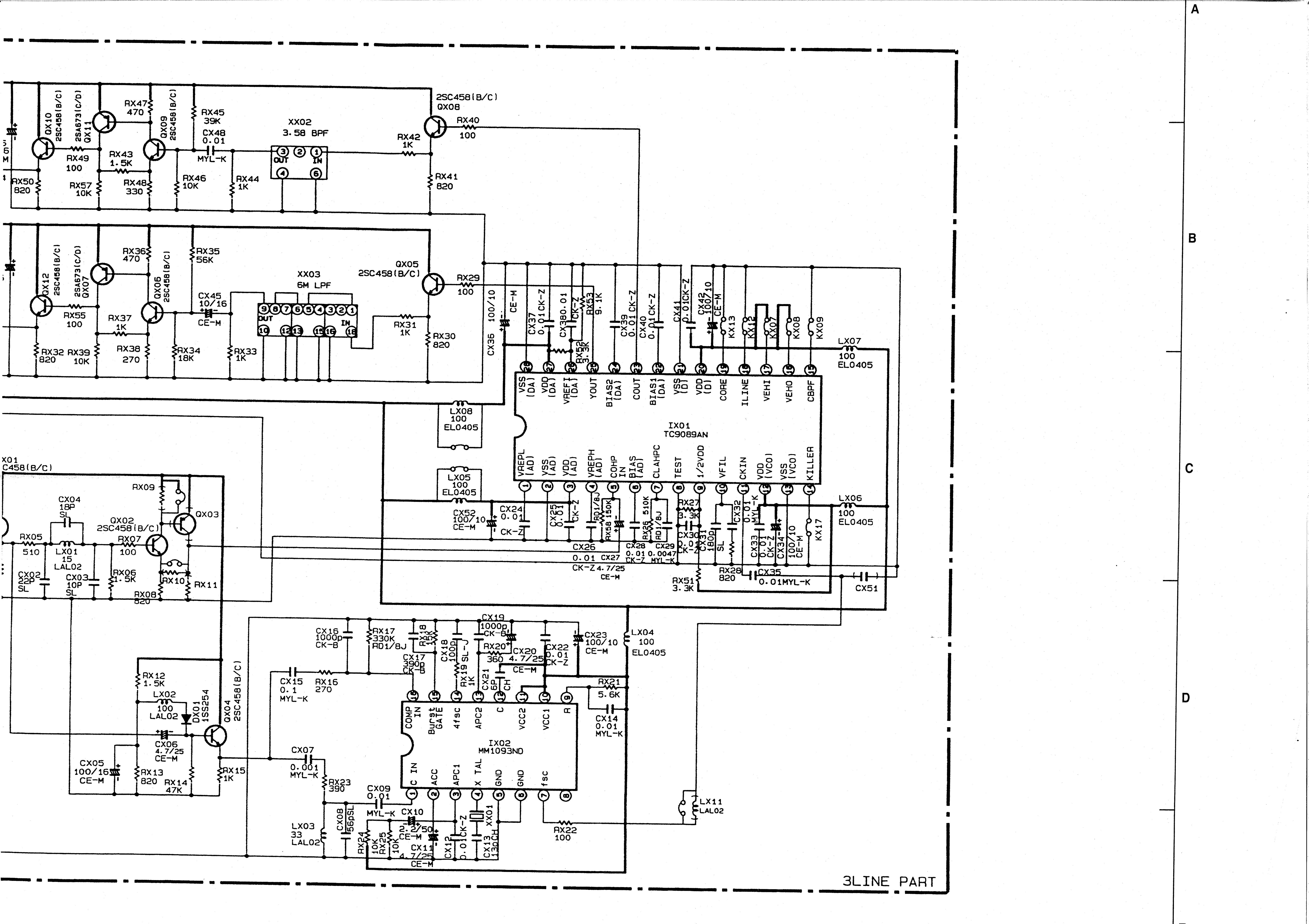

1
2
3
4
5
A
B
C
PCX
(NC) 15
(NC) 14
(NC) 13
(NC) 12
(NC) 11
+5V 10
GND 9
NC 8
YOUT 7
+9V 6
COUT 5
GND 4
NC 3
GND 2
VIDEO IN 1
HX01
HX02
HX03
HX04
CE-M
100/16
CX49
CX50
100/10
CE-M
LX10
100
EL0405
LX09
100
EL0405
CX46
100/16
CE-M
CX47
100/16
CE-M
RX54
100
RX50
820
RX56
100
QX10
2SC458(B/C)
2SA673(C/D)
QX11
RX49
100
RX57
10K
RX43
1.5K
RX48
330
RX47
470
QX09
2SC458(B/C)
RX45
39K
CX48
0.01
MYL-K
RX46
10K
RX44
1K
XX02
3.58 BPF
OUT
IN
RX42
1K
2SC458(B/C)
QX08
RX40
100
RX41
820
QX12
2SC458(B/C)
2SA673(C/D)
QX07
RX55
100
RX32 820
RX39 10K
RX36
470
RX37
1K
RX38
270
QX06
2SC458(B/C)
RX35
56K
CX45
10/16
CE-M
RX34
18K
RX33
1K
XX03
6M LPF
OUT
IN
QX05
2SC458(B/C)
RX29
100
RX31
1K
RX30
820
CX36 100/10
CE-M
CX37 0.01 CK-Z
CX38 0.01 CK-Z
RX53 9.1K
RX52 3.3K
CX39 0.01 CK-Z
CX40 0.01 CK-Z
CX41 0.01 CK-Z
CX42 100/10 CE-M
KX13
KX12
KX07
VSS (DA)
VDD (DA)
VREF (DA)
YOUT
BIAS2 (DA)
COUT
BIAS1 (DA)
VSS (D)
VDD (D)
CORE
ILINE
VEHI
IX01
TC9089AN
VREPL (AD)
VSS (AD)
VDD (AD)
VREPH (AD)
COHP IN
BIAS (AD)
CLAHPC
TEST
1/2VDD
VFIL
CKIN
VDD (VCO)
LX08
100
EL0405
LX05
100
EL0405
CX52
100/10
CE-M
CX24
0.01
CK-Z
CX25 0.01 CK-Z
RD1/8J
RX58 150K
CX26
0.01
CK-Z
CX27 4.7/25
CE-M
RX26 510K
RD1/8J
CX28 0.01 CK-Z
CX29 0.0047 MYL-K
RX27 3.3K
CX30 0.01 CK-Z
CX31 180p SL
CX32 0.01 MYL-K
CX33 0.01 CK-Z
RX51 3.3K
RX28 820
CX35 0.01
QX01
2SC458(B/C)
CX01 10/16 CE-M
RX01 27K
RX03 100
RX02 100K
RX04 820
RX05 510
CX02 22P SL
CX04 18P SL
LX01 15 LAL02
CX03 10P SL
QX02
2SC458(B/C)
RX07 100
RX06 1.5K
RX08 820
RX09
RX10
RX11
QX03
RX12
CX16 1000p CK-B
RX17 330K RD1/8J
RX18 15K
CX17 390p CK-B
CX18 100p SL-J
RX19 1K
CX19 1000p CK-B
RX20 360
CX20 4.7/25 CE-M
CX21
CX22 0.01 CK-Z
CX23 100/10 CE-M
LX04 100 EL0405
CX15
RX16
RX21
B/C)

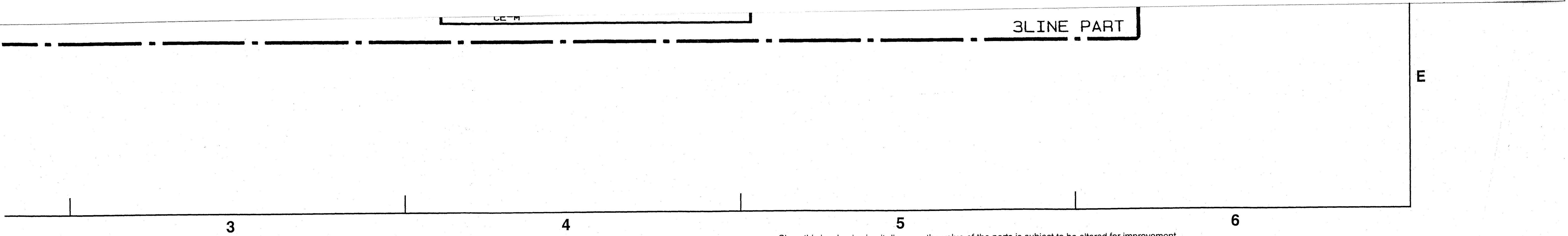

D
E
1
2
3
4
5
RX12 1.5K
LX02 100 LAL02
DX01 1SS254
QX04 2SC458(B/C)
CX06 4.7/25 CE-M
CX05 100/16 CE-M
RX13 820
RX14 47K
RX15 1K
CX15 0.1 MYL-K
RX16 270
CX07 0.001 MYL-K
RX23 390
LX03 33 LAL02
CX08 56pSL
CX09 0.01 MYL-K
CX10 2.2/50 CE-M
RX24 10K
RX25 10K
CX11 4.7/25 CE-M
CX12 0.01CK-Z
CX13 130CH
XX01
RX22 100
CX17 390p CK-B
RX19 1K
RX20 360
CX20 4.7/25
CX21 6P CH
CE-M
CX22 0.01 CK-Z
RX21 5.6K
CX14 0.01 MYL-K
EL0405
LX11 LAL02
IX02 MM1093ND
COMP IN
Burst GATE
4fsc
APC2
C
VCC2
VCC1
R
C IN
ACC
APC1
X TAL
GND
GND
fsc

- Since this is a basic circuit diagram, th
- All DC voltage to be measured with a t

CIRCUIT No.	Pin No.	DC Voltage Vdc
IX01	1	1.5
	2	0
	3	4.5
	4	3
	5	2
	6	1
	7	3
	8	0
	9	2.5
	10	1.5
	11	2
	12	4.5
	13	0
	14	0
	15	0
	16	0
	17	4.5
	18	0
	19	0
	20	4.5
	21	0
	22	3
	23	4
	24	1.5
	25	4
	26	3.5
	27	4.5
	28	0

CIRCUIT N
IX02


A
B
C
D
3LINE PART
QX10 2SC458(B/C)
QX11 2SA673(C/D)
QX09 2SC458(B/C)
RX47 470
RX45 39K
CX48 0.01 MYL-K
XX02 3.58 BPF
OUT
IN
2SC458(B/C) QX08
RX40 100
RX42 1K
RX41 820
RX49 100
RX43 1.5K
RX50 820
RX57 10K
RX48 330
RX46 10K
RX44 1K
QX12 2SC458(B/C)
2SA673(C/D) QX07
QX06 2SC458(B/C)
RX36 470
RX35 56K
CX45 10/16 CE-M
XX03 6M LPF
QX05 2SC458(B/C)
RX29 100
RX31 1K
RX30 820
RX55 100
RX37 1K
RX38 270
RX32 820
RX39 10K
RX34 18K
RX33 1K
CX36 100/10 CE-M
CX37 0.01CK-Z
CX38 0.01 CK-Z
RX53 9.1K
RX52 3.3K
CX39 0.01 CK-Z
CX40 0.01 CK-Z
CX41 0.01CK-Z
CX42 100/10 CE-M
KX13
KX12
KX07
KX08
KX09
LX07 100 EL0405
LX08 100 EL0405
LX05 100 EL0405
LX06 100 EL0405
IX01 TC9089AN
VSS (DA)
VDD (DA)
VREFI (DA)
YOUT
BIAS2 (DA)
COUT
BIAS1 (DA)
VSS (D)
VDD (D)
CORE
ILINE
VEHI
VEHO
CBPF
VREPL (AD)
VSS (AD)
VDD (AD)
VREPH (AD)
COHP IN
BIAS (AD)
CLAHPC
TEST
1/2VDD
VFIL
CKIN
VDD (VCO)
VSS (VCO)
KILLER
CX52 100/10 CE-M
CX24 0.01 CK-Z
CX25 0.01 CK-Z
RD1/8J
RX58 150K
RX36 510K
RD1/8J
RX27 3.3K
CX30 0.01 CK-Z
CX31 180P SL
CX32 0.01 MYL-K
CX33 0.01 CK-Z
CX34 100/10 CE-M
KX17
CX26 0.01 CK-Z
CX27 4.7/25 CE-M
CX28 0.01 CK-Z
CX29 0.0047 MYL-K
RX51 3.3K
RX28 820
CX35 0.01MYL-K
CX51
X01
C458(B/C)
RX09
QX03
CX04 18P SL
QX02 2SC458(B/C)
RX05 510
LX01 15 LAL02
RX07 100
CX02 22P SL
CX03 10P SL
RX06 1.5K
RX10
RX11
RX08 820
CX16 1000p CK-B
RX17 330K RD1/8J
RX18 15K
CX18 100p SL-J
CX19 1000p CK-B
RX20 360
CX20 4.7/25 CE-M
CX22 0.01 CK-Z
CX23 100/10 CE-M
LX04 100 EL0405
CX17 390p CK-B
RX19 1K
CX21 6P CH
CX15 0.1 MYL-K
RX16 270
RX21 5.6K
CX14 0.01 MYL-K
COMP IN
Burst GATE
4fsc
APC2
C
VCC2
VCC1
R
IX02 MM1093ND
C IN
ACC
APC1
X TAL
GND
GND
fsc
RX12 1.5K
LX02 100 LAL02
DX01 1SS254
QX04 2SC458(B/C)
CX06 4.7/25 CE-M
CX05 100/16 CE-M
RX13 820
RX14 47K
RX15 1K
CX07 0.001 MYL-K
RX23 390
CX09 0.01 MYL-K
CX10 2.2/50 CE-M
LX03 33 LAL02
CX08 56pSL
RX24 10K
RX25 10K
CX11 4.7/25 CE-M
CX12 0.01CK-Z
XX01
CX13 130CH
RX22 100
LX11 LAL02



- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.
- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT No.	Pin No.	DC Voltage Vdc
IX01	1	1.5
	2	0
	3	4.5
	4	3
	5	2
	6	1
	7	3
	8	0
	9	2.5
	10	1.5
	11	2
	12	4.5
	13	0
	14	0
	15	0
	16	0
	17	4.5
	18	0
	19	0
	20	4.5
	21	0
	22	3
	23	4
	24	1.5
	25	4
	26	3.5
	27	4.5
	28	0

CIRCUIT No.	Pin No.	DC Voltage Vdc
IX02	1	3
	2	1
	3	2
	4	3
	5	0
	6	0
	7	2
	8	0
	9	0
	10	4.5
	11	4.5
	12	1.5
	13	2
	14	3
	15	0.5
	16	2.5

CIRCUIT No.	Pin No.	DC Voltage Vdc
QX01	B	6
	C	9
	E	5.5
QX02	B	4
	C	9
	E	3.5
QX04	B	6
	C	9
	E	5
QX05	B	4
	C	9
	E	3
QX06	B	2
	C	8
	E	1.5
QX07	B	9
	C	5
	E	8
QX08	B	4
	C	9
	E	3.5
QX09	B	2
	C	8
	E	1
QX10	B	4.5
	C	9
	E	4
QX11	B	9
	C	4.5
	E	8
QX12	B	5
	C	9
	E	4